



HABITAT ENHANCEMENT PROGRAM 2017 HABITAT MONITORING REPORT

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Terminology Used

- **Agreement:** Reference to the *Working Agreement Concerning Procedures for Development and Operation of the Port Metro Vancouver Habitat Bank* between Vancouver Fraser Port Authority and Fisheries and Oceans Canada dated July 31, 2012 (signed September 10, 2012).
- **As-Built Report:** A report produced upon completion of construction to confirm the dimensions, geometry and locations of all elements of the work completed. The report includes record drawings prepared by a Professional Engineer and an inspection report prepared by a Qualified Environmental Professional to confirm that the site has been constructed to meet the biological objectives of the project.
- **DFO:** Fisheries and Oceans Canada
- **Glenrose Tidal Marsh Sites:** Glenrose Downstream Tidal Marsh, Glenrose Cannery Tidal Marsh and Gunderson Mudflat Tidal Marsh sites.
- **Habitat Bank:** Vancouver Fraser Port Authority Habitat Bank
- **HEP:** Habitat Enhancement Program
- **Legacy Habitat Banking Sites:** Gladstone Park Tidal Marsh, Riverfront Park Tidal Marsh and Timberland Basin Habitat sites.
- **PCMP:** Post-Construction Monitoring Plan
- **QEP:** Qualified Environmental Professional
- **Salt Marsh Restoration Sites:** Salt Marsh Restoration Sites 3.1 to 3.5
- **VFPA:** Vancouver Fraser Port Authority

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Monitoring Terminology

- **Quantitative assessment:** An assessment that occurs the first year following site construction to assess baseline conditions, select transects and establish reference sites. This assessment will identify qualitative and quantitative biophysical characteristics associated with the site. The assessment will be conducted by a Qualified Environmental Professional and a Professional Engineer, as required.
- **Functionality assessments:** Assessments that occur following a quantitative assessment. Functionality assessments will identify qualitative biophysical characteristics associated with the site. Functionality assessments will occur annually until the site is determined to be stable and functioning as intended. The assessments will be conducted by a Qualified Environmental Professional and a Professional Engineer, as required.
- **Annual inspections:** Inspections that are associated with sites in the Habitat Bank for general assurance that the habitat remains functional (per *Sections 3.6 and 4.2* of the Agreement). These inspections will occur following completion of the functionality assessment period. In addition, annual inspections will be required for at least one year following withdrawal of a site from the Habitat Bank to confirm habitat viability (per *Section 3.4 c*) of the Agreement).
- **Confirmatory assessment:** An assessment that is associated with a site proposed to be withdrawn from the Habitat Bank (per *Section 3.4 d*) of the Agreement). The assessment will follow established protocols from the quantitative assessment or methods established by DFO as a condition of Authorization.

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Introduction

The Vancouver Fraser Port Authority (VFPA's) Habitat Enhancement Program (HEP) is an initiative focused on creating and enhancing fish and wildlife habitat. This proactive program is intended to provide a balance between a healthy environment and future development projects. The program is being undertaken in accordance with the *Working Agreement Concerning Procedures for the Development and Operation of the Port Metro Vancouver Habitat Bank, 2012* (the Agreement) between VFPA and Fisheries and Oceans Canada (DFO). The Agreement acknowledges the mutual benefits of habitat banking to both parties and provides guidelines for the operation of the VFPA Habitat Bank (the Habitat Bank).

This 2017 Habitat Monitoring Report is the fifth annual monitoring report prepared by VFPA's HEP and is intended to satisfy the post-construction monitoring conditions outlined in the Agreement. In accordance with the Agreement, formal post-construction monitoring was undertaken in 2017 at 11 of the 12 sites in the Habitat Bank. One new site, the New Brighton Park Shoreline Habitat Restoration Site (New Brighton), was constructed and planted in 2017 and HEP will commence formal post-construction monitoring of this site in 2018.

The current sites in the Habitat Bank include:

- Legacy Habitat Banking Sites:
 - Gladstone Park Tidal Marsh, Fraser River North Arm, Vancouver
 - Riverfront Park Tidal Marsh, Fraser River North Arm, Vancouver
 - Timberland Basin Habitat, Fraser River, Surrey
- Salt Marsh Restoration Sites:
 - Salt Marsh Restoration Site 3.1, Roberts Bank, Delta
 - Salt Marsh Restoration Site 3.2, Roberts Bank, Delta
 - Salt Marsh Restoration Site 3.3, Boundary Bay, Delta
 - Salt Marsh Restoration Site 3.4, Boundary Bay, Delta
 - Salt Marsh Restoration Site 3.5, Boundary Bay, Delta
- Glenrose Tidal Marsh Sites:
 - Glenrose Downstream Tidal Marsh, Fraser River, Delta
 - Glenrose Cannery Tidal Marsh, Fraser River, Delta
 - Gunderson Mudflat Tidal Marsh, Fraser River, Delta
- New Brighton Park Shoreline Habitat Restoration Site, Burrard Inlet, Vancouver

This report describes the results from the 2017 post-construction monitoring period.

Types of Monitoring

Sites included in the Habitat Bank are subject to post-construction monitoring to confirm that the habitats are viable and functioning as intended. Although monitoring is site-specific, typical assessments include evaluations of vegetation establishment and physical stability. VFPA's goal is to provide consistent and coherent monitoring across all sites. If monitoring outlines deficiencies in site function, VFPA and DFO will mutually agree to a course of action. A Post-Construction Monitoring Plan (PCMP) was developed by VFPA to address protocols for assessing various habitat types, and it outlines how specific habitat types will be monitored in accordance with the Agreement. The PCMP was reviewed and acknowledged for use by DFO in 2015, and is reviewed periodically by VFPA's HEP.

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To distinguish between the monitoring effort proposed for sites in the Habitat Bank, the different types of monitoring have been defined (refer to the *Terminology Used* section above). Annual post-construction monitoring may include: quantitative assessments; functionality assessments; annual inspections; and, confirmatory assessments.

2017 Monitoring Results

As of December 31, 2017, the Habitat Bank includes 12 habitat sites. Eleven of the sites were constructed prior to the 2017 growing season and required post-construction monitoring in accordance with the Agreement. The 2017 annual post-construction monitoring reports are included in **Appendix A**. A summary of the monitoring results for each site is included below.

Legacy Habitat Banking Sites

The legacy habitat banking sites (i.e., Gladstone Park Tidal Marsh, Riverfront Park Tidal Marsh and Timberland Basin Habitat) consist of tidal marsh and mudflat benches that were constructed over 20 years ago. Despite the presence of non-native species at the sites, as is common in most marsh habitats along the Fraser River, marsh vegetation density is high. These marsh benches are providing quality estuarine fish rearing habitat, as well as habitat for wildlife.

Gladstone Park Tidal Marsh

The Gladstone Park Tidal Marsh, originally part of the North Fraser Harbour Habitat Compensation Bank, was constructed in 1993 and was transferred into the VFPA Habitat Bank in 2013. The fifth annual inspection of the site since its transfer into the VFPA Habitat Bank was undertaken in August 2017, approximately 24 years following construction of the site.

Conditions observed in August 2017 were largely unchanged from 2016, with the marsh bench supporting dense emergent native and non-native vegetation (e.g., invasive purple loosestrife (*Lythrum salicaria*)). Stranded logs were observed along most of the shoreline near the riprap berm and riverward edge of the marsh. The riprap berm appeared to be stable and, in combination with the log booms stored offshore, was providing protection from vessel-generated waves. The marsh habitat was determined to be providing high quality estuarine fish rearing habitat for juvenile salmonids and other fish species. Another annual inspection is scheduled to be undertaken during the 2018 monitoring period.

Riverfront Park Tidal Marsh

The Riverfront Park Tidal Marsh, originally part of the North Fraser Harbour Habitat Compensation Bank, was constructed in 1993 and was transferred into the VFPA Habitat Bank in 2013. The fifth annual inspection of the site since its transfer into the VFPA Habitat Bank was undertaken in August 2017, approximately 24 years following construction of the site.

The marsh bench supports dense, well-established native and non-native vegetation. Cattail appears to be increasing in distribution with sedge composition decreasing at the site, potentially indicating that sediment accretion is occurring. Approximately half a dozen plants of a new exotic species, common hound's-tongue (*Cynoglossum officinale*) was observed in the marsh. The rock berm and log booms moored offshore were providing protection from vessel-generated waves and were helping to form a broad mudflat extending riverward from the rock berm at the site. The marsh habitat is providing high quality fish habitat for rearing juvenile fishes, such as salmonids, as well as birds and wildlife. Another annual inspection is scheduled to be undertaken during the 2018 monitoring period.

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Timberland Basin Habitat

The Timberland Basin Habitat, originally part of the Fraser River Harbour Commission's Habitat Bank, was constructed in stages in the late 1980s through 1990s and was transferred into the VFPA Habitat Bank in 2014. The fourth annual inspection of the site since its transfer into the VFPA Habitat Bank was undertaken in August 2017, approximately 28 years following construction of the site.

The site consists of both intertidal marsh and mudflat habitats. In recent years, portions of the mudflat appear to be transitioning to low marsh habitat. The vegetation communities remain largely unchanged from the 2016 inspection with marsh vegetation consisting of taller, emergent species in the upper elevations along the protective training wall and shorter species colonizing the previously unvegetated mudflat. Logs were observed scattered throughout the upper marsh. The site and riprap berm are physically stable and well sheltered from vessel-generated waves originating in the Fraser River navigational channel. Based on the 2017 inspection, the Timberland Habitat site is providing emergent marsh habitat for juvenile salmonids and other fish species, as well as waterfowl and other wildlife.

Due to observations of the gradual transition of mudflat habitat to marsh habitat, habitat credit types will need to be reassessed at the site prior to proposed credit withdrawal (i.e., during the confirmatory assessment stage). Another annual inspection at the site is scheduled to be undertaken during the 2018 monitoring period.

Salt Marsh Restoration Sites

Restoration of the salt marsh sites at Roberts Bank and Boundary Bay (i.e., Salt Marsh Restoration Sites 3.1 to 3.5) was completed between fall 2013 and winter of 2013-14. The fourth post-construction assessments of the sites were undertaken in August 2017. The fifth post-construction assessments of the sites are scheduled to take place in 2018, the final year of the initial five-year post-construction monitoring period.

The 2017 inspections confirm that vegetation communities are generally establishing well in the former log accumulation areas at the salt marsh restoration sites. However, the dry and hot summer in 2017 created hyper-saline conditions for plants in the depressions and low-lying areas of the restoration sites.

Although log accumulation surveys were not undertaken at any of the sites in 2017, visual observations indicate that, with the exception of Site 3.1, logs have accumulated at the base of the dyke at most sites (and throughout the marsh at Site 3.3). Monitoring in 2018 will include spring log accumulation surveys (at Sites 3.2 to 3.5) as well as an assessment of potential recolonization of hyper-saline areas. Based on the monitoring to-date, the marsh restoration at Sites 3.1 to 3.5 have shown improved fish habitat function compared to pre-construction conditions.

Salt Marsh Restoration Site 3.1

Salt Marsh Restoration Site 3.1 was established by VFPA's HEP in March 2013 with additional log removal work undertaken in October 2013. Surveys of log accumulations have not historically been undertaken at this site during post-construction monitoring, as the site is protected from the influx of logs and woody debris by a storm surge dyke. No logs were observed in the restored site during the site inspection in 2017. Low salt marsh vegetation was observed to have established over the restored area with the exception of water-filled depressions. An increase in invasive English cordgrass (*Spartina anglica*) was observed along tidal channels at the site. The monitoring indicated that the restoration area supports dense high marsh species with vegetation communities largely unchanged from those observed in 2016.

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Salt Marsh Restoration Site 3.2

Salt Marsh Restoration Site 3.2 was established by VFPA's HEP in January 2014. Visual assessments during the August 2017 functionality assessment indicated that a heavy accumulation of logs had formed between the north boundary of the restoration area and the toe of the dyke, with some logs deposited along the edge of the marsh. The monitoring also indicated that the vegetation community has changed substantially with exotic upland species dominating the western section of the sand gravel berm at the front of the marsh. Orache (*Atriplex patula*) which had dominated most of the restoration area behind the berm in 2016 were observed to be largely dead, potentially due to the hot and dry summer conditions experienced throughout July and August 2017. However, intertidal marsh was denser in the restored area to the east of the berm.

Salt Marsh Restoration Site 3.3

Salt Marsh Restoration Site 3.3 was established by VFPA's HEP in September 2013. The monitoring assessment indicated that species in the restoration area are largely unchanged from 2016. However, visual assessments indicated heavy log accumulations against the dyke with logs occurring throughout the restoration site. Vegetation was observed growing around and over the logs. Localized unvegetated areas were also observed in low elevation depressions in the salt marsh, likely caused by hyper-saline conditions resulting from abnormally dry summer conditions in 2017.

Salt Marsh Restoration Site 3.4

Salt Marsh Restoration Site 3.4 was established by VFPA's HEP in September 2013. The monitoring indicated good growth of high and low marsh vegetation. However, visual assessments indicated that logs have accumulated along the dyke with several large logs accumulating in the central portion of the site. Vegetation was observed growing around and through spaces between the logs. Some localized unvegetated areas were also observed in low elevation depressions in the salt marsh, likely caused from hyper-saline conditions resulting from abnormally dry summer conditions in 2017.

Salt Marsh Restoration Site 3.5

Salt Marsh Restoration Site 3.5 was established by VFPA's HEP in September 2013. The monitoring indicated that the vegetation community in the restoration area is largely unchanged from 2016. However, visual assessments indicated that logs have accumulated along the dyke with many of the logs hidden by dense herbaceous vegetation. Some localized unvegetated areas were also observed in low elevation depressions in the salt marsh, likely caused from hyper-saline conditions resulting from abnormally dry summer conditions in 2017.

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Glenrose Tidal Marsh Sites

The Glenrose Tidal Marsh sites (Glenrose Downstream, Glenrose Cannery and Gunderson Mudflat) were constructed by VFPA's HEP in the spring/summer of 2014 and were initially planted in the late summer of 2014. The third post-construction assessments of the sites were undertaken in August 2017. The fourth post-construction assessments of the sites are scheduled to take place in 2018.

The 2017 inspections indicate that vegetation coverage has increased at all three Glenrose Tidal Marsh sites over the three growing seasons since construction. The constructed marshes were observed to have slightly greater plant diversity than their respective reference marshes. The Glenrose Downstream Tidal Marsh has established a high density and coverage of marsh vegetation and is functioning as intended, while vegetation coverage at the Glenrose Cannery and Gunderson Mudflat sites are still sparse in some areas. During monitoring invasive purple loosestrife was observed at the three sites. As required, VFPA HEP plans to review and remove relevant invasive vegetation species at Glenrose Tidal Marsh sites as part of HEP's overall maintenance program.

Overall, monitoring indicates that the constructed habitats are providing improved fish habitat functionality (e.g., improved feeding, rearing and cover areas for juvenile salmonids) over pre-construction conditions.

Glenrose Downstream Tidal Marsh

Monitoring of the Glenrose Downstream Tidal Marsh indicated that vegetation establishment is dense across the entire marsh bench, with 20 species of marsh plants recorded at the site. Baltic rush (*Juncus acuminatus*) had successfully established around most of the perimeter of the site to help protect the marsh against vessel-generated waves. While some logs and woody debris were observed in and along the marsh (with the majority along the riprap berm), no new notable log accumulations were observed in the marsh compared to 2016 observations. The rock berm and shoreline armouring were observed to be stable and functioning as intended. Purple loosestrife was observed but had low frequency of occurrence in the quadrats sampled.

The 2017 assessment indicates that the Glenrose Downstream Tidal Marsh is providing suitable conditions for marsh establishment and functioning as high-quality habitat for fish and wildlife. Marsh coverage and plant diversity, achieved in only three growing seasons, is equivalent to its mature reference marsh. Further monitoring of the site will continue in 2018.

Glenrose Cannery Tidal Marsh

The Glenrose Cannery Tidal Marsh consists of a marsh bench downstream (Cannery West), and a marsh bench upstream (Cannery East) of the former cannery building. Similar to observations from 2015 and 2016, the 2017 monitoring indicated that the Cannery West marsh bench retained more dredged material and supported higher plant coverage (with over 80% of the quadrats having marsh vegetation coverage exceeding 50%) in comparison to the Cannery East bench. The Cannery East bench consists of predominantly bare rock substrate and appears to be more exposed and experiences more scouring (with only 12% of the quadrats having marsh vegetation coverage exceeding 50%), than the Cannery West bench. However, diversity across the Glenrose Cannery marsh was relatively high with 27 vegetation species documented.

The protective riprap berm was observed to be stable and functioning as designed. The marsh bench is narrow across the site and more exposed to Canada geese (*Branta canadensis*) grazing, erosion from vessel-generated waves, and drifting logs. Despite these environmental stressors, the intertidal benches showed improved plant coverage in 2017 compared to 2016. These marsh benches are still providing ecological functions for fish, including feeding and rearing areas for

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juvenile salmon. However, the habitat productivity of the Cannery East bench is limited by poor vegetation coverage, which reduces inputs to the detrital-based food web. Purple loosestrife was also frequently observed. An assessment of vegetation coverage, sediment accumulation and site stability will continue with monitoring in 2018.

Gunderson Mudflat Tidal Marsh

Due to heavy grazing by Canada geese, plastic fence enclosures were installed at the Gunderson Mudflat Tidal Marsh site in 2015 and 2016. These fences were shown, if maintained, to be effective at allowing marsh vegetation within the enclosures to mature as it successfully prevented grazing by Canada geese. In early 2017, an alternate enclosure design using Vexar fencing with ropes was installed to try to prevent entry by Canada geese. However, based on the results of the 2017 assessment, these enclosures were not effective at preventing grazing by geese. These rope enclosures were replaced with plastic fence enclosures in August 2017.

Results from the 2017 monitoring indicate that marsh vegetation coverage has increased in both the open bench sections and enclosure areas, with 50% of the quadrats in the marsh supporting dense vegetation coverage. However, most of the coverage was due to small, low-growing naturally recruited plants, with coverage by transplanted species largely being limited to enclosures. These transplanted tall emergent plants are preferred as they increase structural complexity of the marsh and generally increase marsh productivity. Diversity of marsh plant species was similar to reference marshes.

The riverward edge of the marsh bench is exposed and quite dynamic. The gravel berm at the riverward edge of the marsh was observed to have migrated further into the marsh (up to 10 metres further compared to 2016 surveys), and had smothered marsh vegetation in some of the large-scale enclosures. However, it is anticipated that the berm will eventually stabilize once an equilibrium is reached between vessel-generated waves and supply of sand and gravel for transport.

Despite impacts from heavy grazing by Canada geese and shoreward migration of the protective gravel berm, the constructed marsh is still contributing to the detrital-based food web and is providing rearing and feeding areas for fish and wildlife. The enclosures are recommended to be kept on site for two to three years to provide sufficient density of marsh plant establishment to withstand geese grazing. Annual maintenance will be undertaken to repair damage to the enclosures (e.g., by floating logs). An assessment of vegetation coverage, grazing pressure and site stability will continue with monitoring in 2018.

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New Brighton Park Shoreline Habitat Restoration Site

Construction of the New Brighton Park Shoreline Habitat Restoration Site was completed by VFPA's HEP in partnership with the Vancouver Board of Parks and Recreation in 2017, including collaboration with the Musqueam, Squamish and Tsleil-Waututh First Nations. Plant installation at the site was completed in June 2017, with supplemental plants installed in September 2017 and November 2017. An As-Built Report for the project, including as-built survey results, was prepared in November 2017 based on observations from September and October 2017. The as-built inspections included an initial assessment of vegetation establishment and site stability, and identification of any remedial measures that may be required.

The inspections of the site indicate that the marine backshore habitats are establishing well, with general plant and site maintenance being undertaken by a maintenance contractor (Inlailawatash LP) on behalf of VFPA. The main tidal channel was functional and appeared to be relatively stable at initial inspection, although some areas of localized erosion were noted. Future annual monitoring will include an assessment of the engineering stability within the excavated tidal channels.

Due to heavy grazing by Canada geese following initial salt marsh transplants, protective geese exclusion fencing was installed at the site in June 2017. Variable success of plants was noted within the marsh benches. VFPA has ordered saltgrass (*Distichlis spicata*) and seaside arrowgrass (*Triglochin maritima*) plugs for installation in the marsh in spring 2018, as some of these species were not available from the nursery for initial transplant in June 2017, and to supplement some of the salt marsh species that showed reduced survival. It is anticipated that fencing adjacent to the tidal channel will be retained for at least one year (dependent on growth) to restrict Canada geese grazing and maximize plant establishment.

VFPA will continue the assessment of the engineering stability of created habitat types (e.g., mudflat) during commencement of the formal post-construction monitoring program in summer 2018.

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2018 Habitat Monitoring Report

It is anticipated that the 2018 Habitat Monitoring Report will include the following post-construction monitoring reports:

- Gladstone Park Tidal Marsh - Year 25: Annual Inspection (Summer 2018)
- Riverfront Park Tidal Marsh - Year 25: Annual Inspection (Summer 2018)
- Timberland Basin Habitat - Year 29: Annual Inspection (Summer 2018)
- Salt Marsh Restoration Site 3.1 - Year 5: Functionality Assessment (Summer 2018)
- Salt Marsh Restoration Site 3.2 - Year 5: Functionality Assessment (Summer 2018)
- Salt Marsh Restoration Site 3.3 - Year 5: Functionality Assessment (Summer 2018)
- Salt Marsh Restoration Site 3.4 - Year 5: Functionality Assessment (Summer 2018)
- Salt Marsh Restoration Site 3.5 - Year 5: Functionality Assessment (Summer 2018)
- Glenrose Downstream Tidal Marsh - Year 4: Functionality Assessment (Summer 2018)
- Glenrose Cannery Tidal Marsh - Year 4: Functionality Assessment (Summer 2018)
- Gunderson Mudflat Tidal Marsh - Year 4: Functionality Assessment (Summer 2018)
- New Brighton Park Shoreline Habitat Restoration - Year 1: Quantitative Assessment (Summer 2018)

Additionally, any habitat targeted for withdrawal in 2018 will be subject to a Confirmatory Assessment. A table depicting the monitoring status and proposed monitoring schedule for sites currently in the Habitat Bank, including any new sites proposed for addition to the Habitat Bank, has been included in **Appendix B**.

Appendix A

2017 Monitoring Reports



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MEMO

FILE NO.: GW1701-01A
DATE: October 12, 2017
TO: [REDACTED] Moffatt & Nichol
FROM: [REDACTED]
SUBJECT: 2017 Inspection of Legacy Site Gladstone and Riverfront Park Tidal Marshes

The 2017 site inspection of the Vancouver Fraser Port Authority's (VFPA) Legacy intertidal marshes at Gladstone and Riverfront Parks on the North Arm of the Fraser River was conducted at low tide on August 17. The site inspection included a biological and engineering assessment of sites by [REDACTED] GL Williams & Associates, and [REDACTED] Moffatt and Nichol. Similar to 2016, the assessment was limited to visual observations and photo-documentation. An annual inspection of the Legacy Sites is required under the Habitat Enhancement Program Post-Construction Monitoring Plan (PCMP) submitted by VFPA to Fisheries and Oceans Canada in March 2015.

Summer weather conditions in the Lower Mainland in 2017 were characterized by above average temperatures with record breaking low levels of rainfall. Average summer monthly and high temperatures were not substantially warmer than 2016 or the 30 years average, but the 2017 extremes were greater than 2016 and approached the extremes experienced during the 30-year average (Table 1). However, rainfall was substantially lower in 2017 than either 2016 or the 30-year average, especially in July and August (Table 2). Combined with the hot temperatures, the low rainfall created severe conditions for vegetation growth and survival.

In 2017, tidal freshwater and brackish habitats experienced hot, dry conditions during daytime low tide exposure, but were "refreshed" with tidal inundation of freshwater during subsequent flood tides. The tidal marshes in the Fraser North Arm are located around mean water and are flooded by high tides daily. However, salt marsh habitats are located between higher high water mean tide and large tides, and experienced additional stress from evaporation from ponded water retained in depressions during low tide that created hyper saline environments before the flood tides inundated the marsh. For high elevation salt marsh, the hypersaline conditions lasted for several days before the large tides inundated the area.

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Table 1. Monthly mean, average high, and extreme temperature (°C) at Vancouver International Airport for June, July and August: 2017, 2016, and 30 year average.

Month	2017			2016			30 y Average		
	Mean	Maximum	Extreme	Mean	Maximum	Extreme	Mean	Maximum	Extreme
June	15.6	19.6	26.2	16.2	20.2	25.2	15.9	19.6	30.0
July	18.3	22.9	25.7	18.3	22.0	24.3	18.1	22.0	31.7
August	18.8	23.2	29.5	18.4	22.3	26.4	18.3	22.3	31.7

Notes: ¹ Source: <http://climate.weather.gc.ca>

² Source: <https://www.theweathernetwork.com>

Table 2. Monthly total rainfall (mm) at Vancouver International Airport for June, July and August; 2017, 2016, and 30 year average.

Month	2017 ¹	2016 ¹	30 Year Average ²
June	46.4	58.2	70.0
July	1.8	32.8	49.0
August	5.0	13.8	48.0

Notes: ¹ Source: <http://climate.weather.gc.ca>

² Source: <https://www.theweathernetwork.com>

Gladstone Park Tidal Marsh

The conditions observed in August 2017 were largely unchanged from 2016, with the Gladstone intertidal marsh is supporting dense emergent marsh vegetation. The upstream section of the marsh (Photo 1) is more sheltered from boat waves by the adjacent shoreline configuration than the downstream section (Photo 2) and the marsh vegetation was denser. The marsh vegetation was comprised of a diverse floral community that included Lyngbye's sedge (*Carex lyngbyei*), softstem bulrush (*Schoenoplectus tabernaemontani*), several species of rush (*Juncus* spp.), spike rush (*Eleocharis palustris*), as well as native common cattail (*Typha latifolia*) and non-native narrowleaf cattail (*Typha angustifolia*) (Photo 2). Stranded logs were observed along most of the shoreline and purple loosestrife (*Lythrum salicaria*) occurred frequently.

Invasive species such as purple loosestrife and other plant species occur within the marsh, but most of these species are common within marsh habitats situated along the North Arm of the Fraser River. Narrowleaf cattail appears to be a more recent species addition to the marsh community and was not recorded in the post-construction monitoring conducted in the 1990's. It was known to be part of the marsh flora in the lower reaches of the estuary (e.g. Musqueam Marsh) and appears to have expanded its range upstream.



The rock riprap containment berm appears to be stable and in combination with the log booms moored offshore, are providing protection from vessel-generated waves. No evidence of loss of marsh bench material through erosion was observed.

The observations from August 2017 confirm that the Gladstone marsh is providing high quality estuarine fish rearing habitat for juvenile salmonids and other fish species that utilize the North Arm of the Fraser River.

Riverfront Park Tidal Marsh

The Riverfront Park tidal marsh is supporting dense, well established vegetation coverage from a diverse assemblage of native and non-native species (Photo 5). Native species include Lyngbye's sedge, common cattail, softstem bulrush, spike rush, and several species of rush. Non-native species include invasive purple loosestrife, water forget-me-not (*Myosotis scorpioides*), and narrowleaf cattail. Cattail appears to be increasing its distribution in the marsh (Photo 6), probably indicating sediment accretion is occurring and increasing surface elevations. Narrowleaf cattail is spreading along the outer marsh edge along the rock containment berm. Several large logs have become stable habitat features and add to the structural complexity for fish and wildlife.

A new exotic species identified as common houndstongue (*Cynoglossum officinale*) was observed for the first time in the marsh (Photo 7). This European plant species is usually found in terrestrial habitats but appears to be successfully growing in the marsh. A half-dozen plants occur in the downstream section of the marsh.

The rock berm and log booms moored offshore are protecting marsh from vessel-generated waves. They have created a low energy conditions for sediments to accrete and form a broad mudflat extending from the toe of the rock berm almost out to the log booms (Photo 8). The mudflat provides additional value to the marsh habitat by adding shallow water habitat for estuarine infauna and productive rearing habitat for juvenile salmonids and other fish species.

The 2017 inspection confirms that the constructed Riverfront marsh habitat is providing high quality fish habitat for rearing juvenile fishes, such as juvenile salmonids, as well as birds and wildlife. The floral composition has changed from predominately sedge, to increasingly more cattail. The plant species diversity is high, comprised of native and non-native species, and includes invasive such as purple loosestrife. The created habitat continues to provide a wide range of ecological services that support fish and wildlife habitat.



August 2017 Photos

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Photo 1. Gladstone upstream marsh protected by upland and log booms

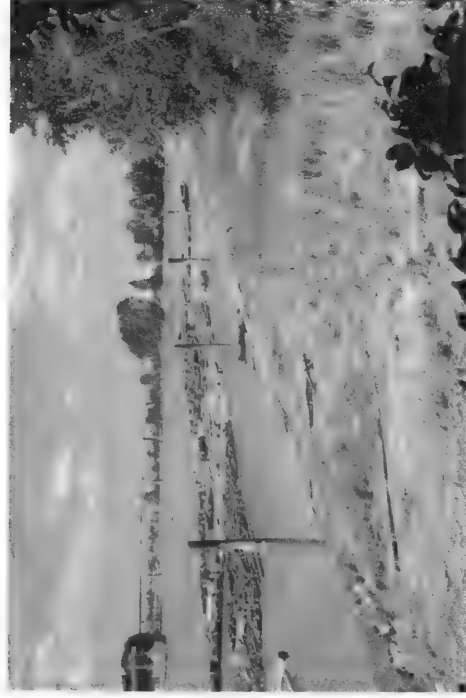


Photo 2. Gladstone upstream marsh viewed from park shoreline

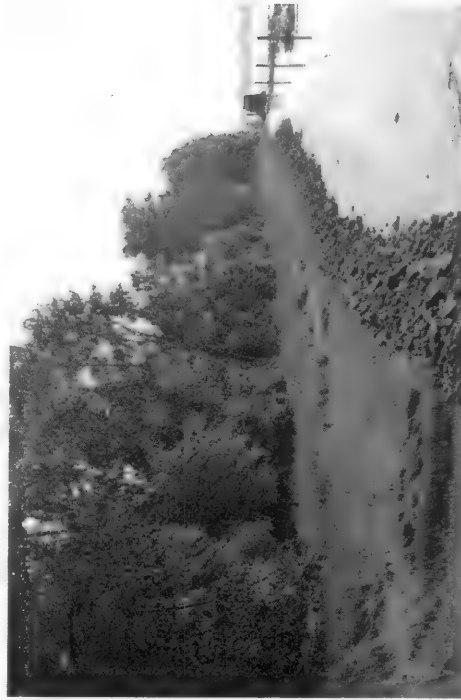


Photo 3. Gladstone marsh observed from the downstream pier



Photo 4. Logs and purple loosestrife in Gladstone marsh

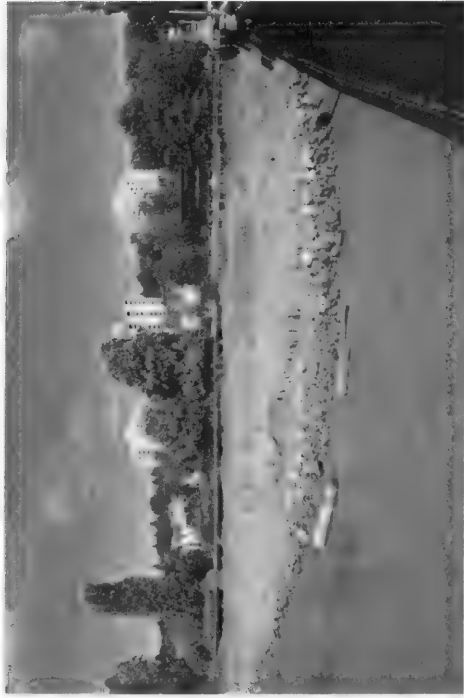


Photo 5. Riverfront intertidal marsh bench at low tide



Photo 6. Cattail species now dominate Riverfront marsh flora



Photo 7. Common houndstongue in Riverfront marsh

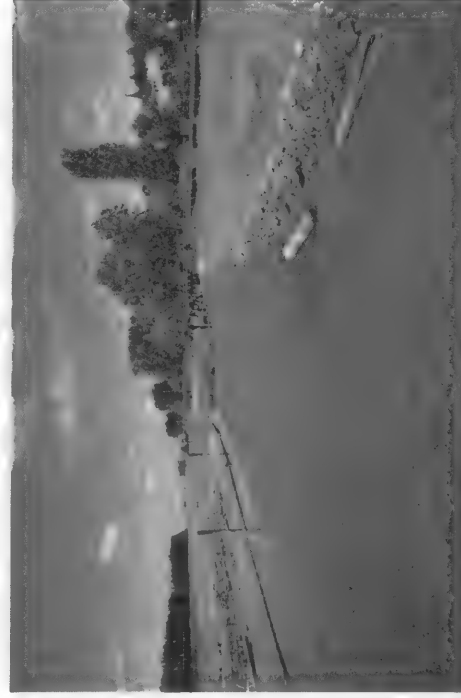


Photo 8. Mudflat between Riverfront berm and log booms



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MEMO

FILE NO.: GW1701-01A
DATE: October 12, 2017
TO: [REDACTED] Moffatt & Nichol
FROM: [REDACTED]
SUBJECT: 2017 Inspection of Timberland Basin Habitat

The 2017 inspection of Vancouver Fraser Port Authority's (VFPA) Timberland Basin Legacy Habitat Site located in Surrey on the Main Arm of the Fraser River was conducted at low tide on August 17. The site inspection included a biological and engineering assessment of sites by [REDACTED] GL Williams & Associates, and [REDACTED] Moffatt and Nichol, respectively. Similar to 2016, the assessment was limited to visual observations and photo-documentation. An annual inspection of the Legacy Site is required under the Habitat Enhancement Program Post-Construction Monitoring Plan (PCMP) submitted by VFPA to Fisheries and Oceans Canada in March 2015.

Summer weather conditions in the Lower Mainland in 2017 were characterized by above average temperatures with record breaking low levels of rainfall. Average summer monthly and high temperatures were not substantially warmer than 2016 or the 30 years average, but the 2017 extremes were greater than 2016 and approached the extremes for the 30- year average (Table 1). However, rainfall was substantially lower in 2017 than either 2016 or the 30- year average, especially in July and August (Table 2). Combined with the hot temperatures, the low rainfall created severe conditions for vegetation growth and survival.

In 2017, tidal freshwater and brackish habitats experienced hot, dry conditions during daytime low tide exposure, but were "refreshed" with tidal inundation of freshwater during subsequent flood tides. The tidal marshes in the Fraser South Arm are located around mean water and are flooded by high tides daily. However, salt marsh habitats are located between higher high water mean tide and large tides, and experienced additional stress from evaporation from ponded water retained in depressions during low tide that created hyper saline environments before the flood tides inundated the marsh. For high elevation salt marsh, the hypersaline conditions lasted for several days before the large tides inundated the area.

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Table 1. Monthly mean, average high, and extreme temperature (°C) at Vancouver International Airport for June, July and August: 2016, 2017, and 30 year average.

Month	2017 ¹			2016 ¹			30 Year Average ²		
	Mean	Maximum	Extreme	Mean	Maximum	Extreme	Mean	Maximum	Extreme
June	15.6	19.6	26.2	16.2	20.2	25.2	15.9	19.6	30.0
July	18.3	22.9	25.7	18.3	22.0	24.3	18.1	22.0	31.7
August	18.8	23.2	29.5	18.4	22.3	26.4	18.3	22.3	31.7

Notes: ¹ Source: <http://climate.weather.gc.ca>

² Source: <https://www.theweathernetwork.com>

Table 2. Monthly total rainfall (mm) at Vancouver International Airport for June, July and August: 2016, 2017, and 30 year average.

Month	2017 ¹	2016 ¹	30 Year Average ²
June	46.4	58.2	70.0
July	1.8	32.8	49.0
August	5.0	13.8	48.0

Notes: ¹ Source: <http://climate.weather.gc.ca>

² Source: <https://www.theweathernetwork.com>

The Timberland site is sheltered behind the training wall (Photo 1) and the vegetation communities remained largely unchanged from the 2016 inspection. The marsh vegetation consists of taller, emergent species in the upper elevations along the training wall, i.e. above approximately 0.8 m geodetic datum (GD) based on the 2014 topo survey (Photo 2) and shorter species colonizing the former unvegetated mudflat, i.e. between 0.1 m and 0.7 m GD elevations (Photo 3).

The upper marsh is dominated by native species such common rush (*Juncus effusus*) and woolgrass (*Scirpus cyperinus*), and invasive species purple loosestrife (*Lythrum salicaria*) and yellow flag (*Iris pseudacorus*). Other observed species included Pacific silverweed (*Potentilla anserina*) creeping bentgrass (*Agrostis stolonifera*), Baltic rush (*Juncus arcticus*), non-native water forget-me-not (*Myosotis scorpioides*), native small water forget-me-not (*Myosotis laxa*), birdsfoot trefoil (*Lotus corniculatis*), ovoid spikerush (*Eleocharis obtusa*), and northern bugleweed (*Lycopus uniflorus*) (Photo 1). Logs were observed scattered in the upper marsh. The low marsh supported dense coverage of shorter species dominated by water forget-me-not and water purslane (*Ludwigia palustris*). Other marsh plant species observed included mudwort (*Limosella aquatica*), lilaeopsis (*Lilaeopsis occidentalis*), pygmyweed (*Crassula aquatica*), ovoid spikerush, water plantain (*Alisma trivale*) and water-starwort, (*Callitriche stagnalis*). Invasive purple loosestrife and yellow flag are also spreading into the lower marsh.



The site is physically stable, being well sheltered from vessel generated waves originating in the South Arm navigation channel. The rock riprap berm is stable and appears to be functioning as designed (Photo 4).

Based on the 2017 inspection, the Timberland habitat is providing emergent marsh fish habitat for juvenile salmonids and other fish species, as well as waterfowl and other wildlife species.

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August 2017 Photos

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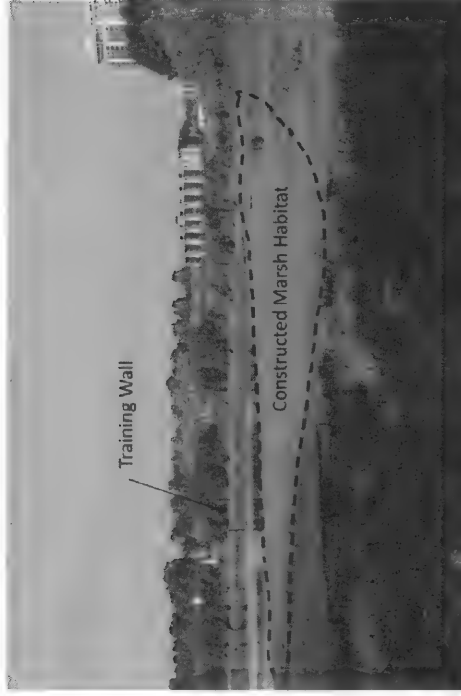


Photo 1. Constructed marsh habitat site within Timberland Basin



Photo 3. Dense low marsh community covers former mudflat

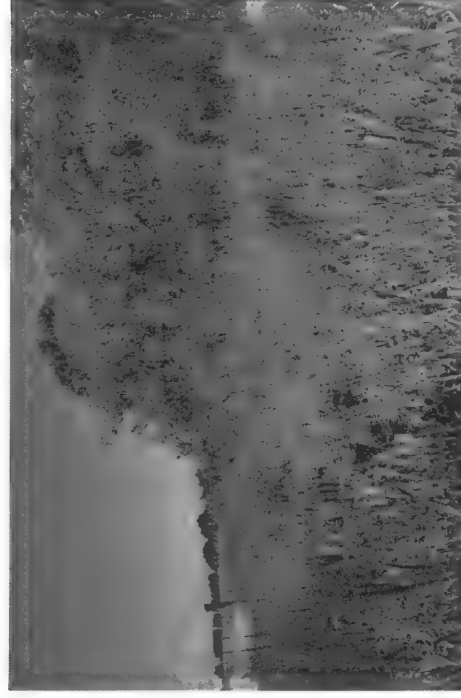


Photo 2. High marsh emergent vegetation at Timberland site



Photo 4. Riprap containment berm along west bench boundary



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MEMO

FILE NO.: GW1701-01D
DATE: October 12, 2017
TO: [REDACTED] Moffatt & Nichol
FROM: [REDACTED]
SUBJECT: 2017 Inspection (Year 4) of Vancouver Fraser Port Authority Habitat Enhancement Program Salt Marsh Restoration Sites

On August 21, 2017, inspections of the Vancouver Fraser Port Authority's (VFPA) Habitat Enhancement Program salt marsh restoration sites in Boundary Bay and Roberts Bank (Figure 1) were conducted. The inspections included a biological and engineering assessment of sites by [REDACTED] GL Williams & Associates, and [REDACTED] Moffatt and Nichol, respectively. The inspections were limited to visual observations and photo-documentation of the amount of log accumulation and status of marsh vegetation re-establishment at each of the restored sites. The inspections of the marsh restoration sites were part of the annual monitoring required under the Habitat Enhancement Program Post-Construction Monitoring Plan (PCMP) submitted by VFPA to Fisheries and Oceans Canada in March 2015.



Figure 1 Location of Salt Marsh restoration sites on Roberts Bank (Sites 3.1 and 3.2) and Boundary Bay (Sites 3.3 to 3.5) in Delta (Source: 2012 aerial base map from Deltamap).



Overview

Summer weather conditions in the Lower Mainland in 2017 were characterized by above average temperatures with record breaking low levels of rainfall. Average summer monthly and high temperatures were not substantially warmer than 2016 or the 30-year average, but the 2017 extremes were greater than 2016 and approached the extremes experienced during the 30-year average (Table 1). However, rainfall was substantially lower in 2017 than either 2016 or the 30- year average, especially in July and August (Table 2). The combination of hot temperatures and low rainfall created severe conditions for vegetation growth and survival.

Table 1. Monthly mean, average high, and extreme temperature (°C) at Vancouver International Airport for June, July and August: 2016, 2017, and 30 year average.

Month	2017 ¹			2016 ¹			30 Year Average ²		
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June	15.6	19.6	26.2	16.2	20.2	25.2	15.9	19.6	30.0
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August	5.0	13.8	48.0

Notes: ¹ Source: <http://climate.weather.gc.ca>

² Source: <https://www.theweathernetwork.com>

Intertidal habitats experienced hot, dry conditions during daytime low tide exposure, but were “refreshed” with subsequent inundation during flood tides. Salt marsh habitats are located higher in the tidal zone, i.e. typically between higher high water of mean and large tides, than freshwater and brackish marshes. During 2017, salt marshes experienced additional stress from evaporation from saline water retained in depressions during low tide that created hyper saline environments (i.e. salt pans) before the subsequent flood tides inundated the marsh. Using Tsawwassen tides, tidal exceedance of higher high water mean tide (i.e. 1.1 m geodetic datum, GD, or 4.1 m chart datum, CD) and higher high water large tides (1.8 m GD or 4.8 m CD) occurs approximately 9% and <1% of the time, respectively (Figure 2). For salt marshes, the hypersaline conditions may have lasted for several days in 2017 with sparse rainfall and before the large tides returned to inundate the area.

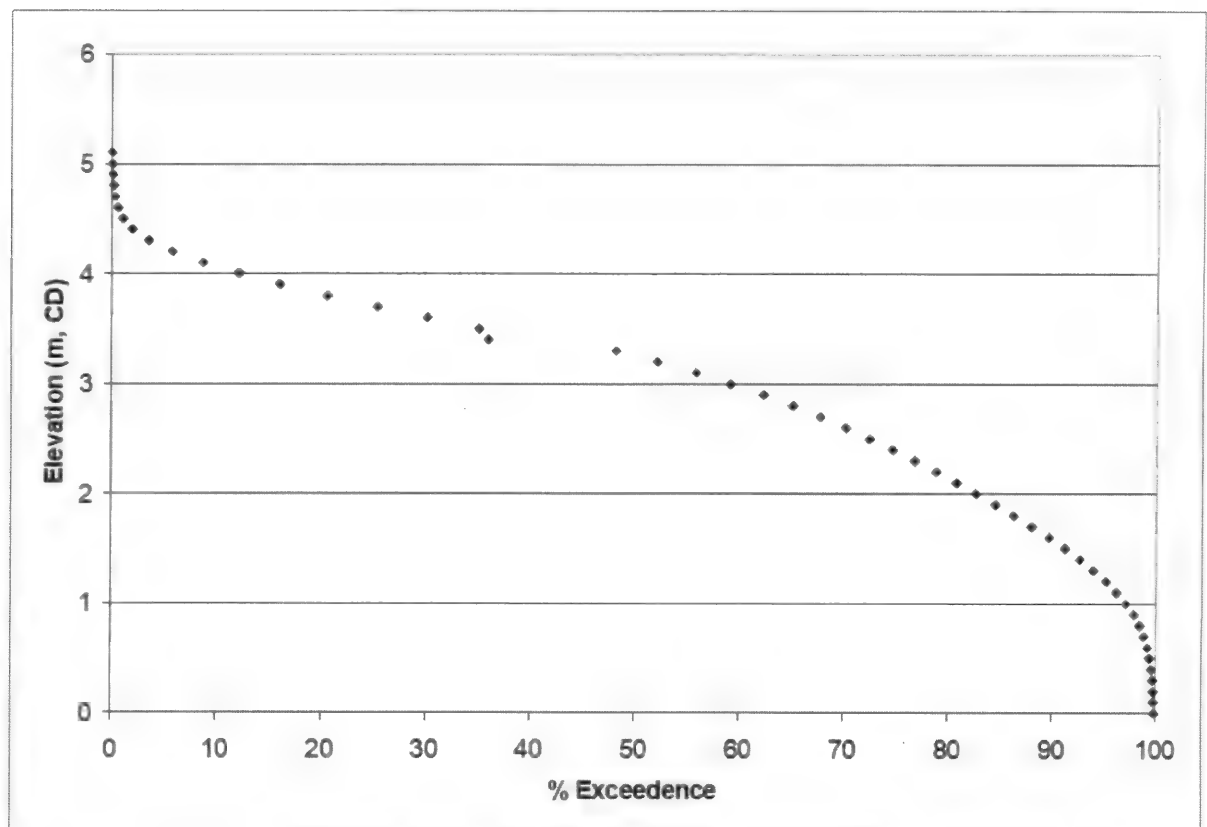


Figure 2. Frequency of exceedance of tide height elevations at Tsawwassen (Source: Northwest Hydraulic Consultants, 2005, Compensation Measures - Physical Response, Memo Prepared for Vancouver Port Authority: 14 p.).

Site 3.1

Site 3.1 is located in the Tsawwassen First Nation reserve behind the sewage treatment plant and extends approximately 300 m to the west along the Tsawwassen Drive. The restoration site is protected by the outer dike, which limits the number of logs and wood debris transported by the tides into the marsh. No logs were observed in the restored site during the site inspection in August 2017.

Low salt marsh vegetation, dominated by pickleweed (*Sarcocornia pacifica*) and saltgrass (*Distichlis spicata*), has established over the entire restored area around the sewage treatment plan, except where water-filled depressions occurred (Photo 1). Elevations were surveyed in 2016 and ranged from 1.2 to 1.4 m geodetic datum (GD), close to the higher high water for mean tides (i.e. 1.1 m GD).



The restoration area along Tsawwassen Drive supports dense high marsh species, dominated by grasses (i.e. saltgrass, spike bentgrass (*Agrostis exarata*), dunegrass (*Leymus mollis*) and reed canary grass (*Phalaris arundinacea*) and localized patches of herbaceous species (i.e. gumweed (*Gindelia integrifolia*), aster (*Symphyotrichum subspicatum*), and yarrow (*Achillea millefolium*) (Photo 2). Surveyed 2016 elevations in this area ranged from 1.3 to 1.8 m GD, and are only inundated by large tides (i.e. higher high water for large tides is 1.8 m GD). The vegetation communities observed in August 2017 largely remained unchanged from 2016.

An important observation made in 2016 was confirmed in 2017. The invasive English cordgrass (*Spartina anglica*) observed in 2016 along the tidal channels behind the sewage treatment has spread and the clones increased in size (Photos 3 and 4). Ducks Unlimited Canada and the Ministry of Agriculture are administering a control and eradication program using herbicides over Boundary Bay and Roberts Bank.

Site 3.2

Site 3.2 has open exposure to the intercauseway area on Roberts Bank and conditions within the restoration area are affected by the marine physical processes (e.g. waves and sediment transport). The upper marsh is bounded by the causeway and Delta sea dike. Heavy log accumulation was observed between the north boundary of the restoration area and the sea dike, with some logs deposited during recent tides along the edge of the marsh (Photo 5). Surveyed elevations in 2016 show the restoration area ranges from 1.6-1.8 m GD, which is just below higher high water for large tides (i.e. 1.8 m GD). It appears that logs are transported across the restoration site during winter storms that occur with high tides, and have formed a heavy accumulation along the toe of the dike.

Salt marsh vegetation within the restoration area observed in 2017 was quite different from 2016. Sweet clover (*Melilotus alba*), an aggressive exotic upland species colonizing disturbed sites, was quite dominant on the western section of the sand gravel berm that had formed along the front of the marsh (Photo 6). The 2016 surveyed elevations of the gravel berm were 2.3 m GD at the western end and 1.8 at the mid point of the restoration area, indicating that the berm crest extends above higher high water on large tides. Observed native species that typically grow along the shoreline at or above the high tide included dunegrass, silver burweed, yarrow, and several exotic, weedy species. In 2016, orache (*Atriplex patula*) dominated most of the restoration area behind the gravel berm but in 2017 most of the orache was dead behind the berm. In the restored area to the east of the berm, intertidal marsh was dense with higher diversity (Photo 8).

One explanation for the orache dieback is that the sand gravel berm prevented drainage of saline tidal flood waters originating from the intercauseway area, which became hyper saline through evaporation during the hot, dry summer days in July and August, and created lethal conditions for the orache and other high marsh species or salt pans. This phenomenon was



observed in localized depressions in the restored salt marsh sites in Boundary Bay as well (see Sites 3.3 – 3.5 below).

Site 3.3

Log accumulation was heaviest overall in Site 3.3, which occurs within a broad embayment with a long southeast fetch extending across Boundary Bay and into the southern Salish Sea. The restoration area was surveyed in 2016 and elevations ranged from 1.3-1.8 m GD, which is between higher high water for mean and large tides. Log accumulation was heaviest around 64th Street (Photos 9 and 10), but logs were spread throughout the site (Photo 11). Logs were concentrated along the dike, the limit for logs transported into the site by strong winds occurring during high tides. Where the logs were not packed closely together, the salt marsh plants are able to grow around and over the logs.

The restored salt marsh area in Site 3.3 is characterized by high marsh species, with saltgrass, orache, Douglas aster, and yarrow being the most common. The vegetation communities observed in 2017 were largely unchanged from 2016.

Similar to observations at the other salt marsh restoration sites, there were localized unvegetated areas in low elevation depressions in the salt marsh, particularly in the areas colonized by saltgrass and pickleweed (Photo 12), probably caused by hyper saline conditions that were lethal to the plants and created small salt pans.

Site 3.4

Situated in an embayment formed by the sea dike, the Site 3.4 restoration area consists of a low marsh central section bounded by strips of high marsh along the dyke to the east and west. Surveyed 2016 elevations were 1.2-1.6 m GD in the central section and 1.6-2.2 m GD in the high marsh areas along the dyke. Logs have accumulated along the dyke (Photo 13) and high marsh vegetation had grown around and through spaces between the logs. In the central portion of the site, several large logs have accumulated and extend into the lower marsh (Photo 14).

High marsh species dominated the eastern and western high marsh areas, with goldenrod (*Solidago canadensis*), reed canary grass, dunegrass, aster and yarrow being common (Photo 15). The central low marsh was dominated by pickleweed and saltgrass. Like other sites on Boundary Bay, localized unvegetated depressions or “pans” were observed in the salt marsh (Photo 16), probably resulting from hyper-saline conditions developing from evaporation of water from the retained saline water during the hot, dry weather.

Site 3.5

Site 3.6 is a 1.5 km long section of shoreline centered at 72nd Street. Concentrated log accumulations occur at 72 Street (Photo 17) and at several other areas along the shore (Photo 18). Along most of the dike, the logs are hidden by the dense grass and herbaceous vegetation growing on the dike slope.



The restoration area was surveyed in 2016 and elevations range from 1.3 m GD to 1.9 m, which confirms its location between higher high water for mean and large tides. The vegetation remains largely unchanged from 2016. In August 2017, the high marsh along the dyke slope consisted of grasses, i.e. spike bentgrass, dunegrass and reed canary grass, and typical coastal herbs, i.e. goldenrod, aster, and yarrow (Photo 19). Low marsh extends seaward from the toe of the dyke and supports pickleweed, saltgrass, seacoast bulrush and other more salt tolerant plants. Unvegetated salt "pans" were common in the low marsh within Site 3.5 (Photo 20).

Summary

The 2017 inspection of the restored salt marshes confirmed that the vegetation communities overall were establishing well in former log accumulation areas. However, the dry, hot summer had created hyper-saline areas that were lethal to plants in depressions or low-lying areas within the intertidal marsh. This was observed in the salt marshes in Boundary Bay and Roberts Banks and appears to be a natural weather-related phenomenon.

Log accumulation was concentrated along the toe of the dike in most sites, but at Site 3.3 the logs were observed throughout the intertidal marsh. Log accumulations were more difficult to assess in the summer because the tall vegetation obscures the logs.

The invasive English cordgrass at Site 3.1 should be controlled to avoid further spreading and impacting the native salt marsh communities.

The monitoring program in 2018 is proposed to include a spring log accumulation survey and marsh vegetation establishment, stability, and topographic surveys in the summer. Data collected from the spring survey in 2018 will, in part, be used to identify any increase in log recruitment from 2016 to 2018". An additional factor that will be included in the assessment are the weather effects to determine if the hyper-saline conditions and effects on salt marsh growth repeat in 2018.

Based on the monitoring to-date, the marsh restoration of sites 3.1 to 3.5 have improved fish habitat function throughout the sites.



August 2017 Photos

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Photo 1. Dense salt marsh behind the treatment plant (Site 3.1)



Photo 2. Restored salt marsh along Tsawwassen Drive (Site 3.1)



Photo 3. Invasive English cordgrass along tidal channel (Site 3.1)

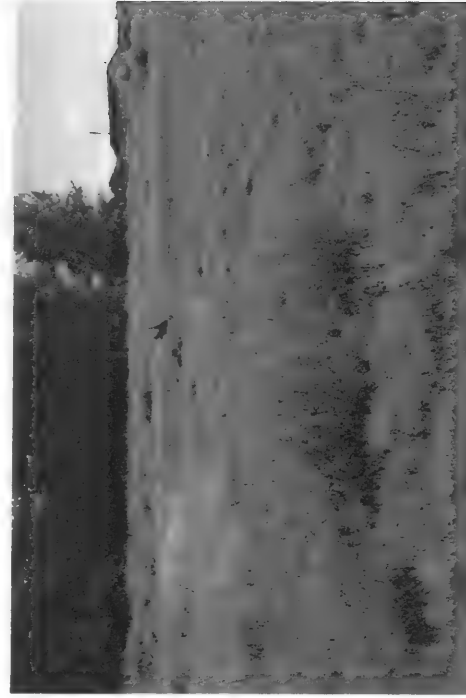


Photo 4. Expanding English cordgrass clone (Site 3.1)



Photo 5. Logs along shore and high marsh (Site 3.2)



Photo 6. Exotic sweet clover invading sand-gravel berm (Site 3.2)



Photo 7. Dead salt marsh within restoration area (Site 3.2)

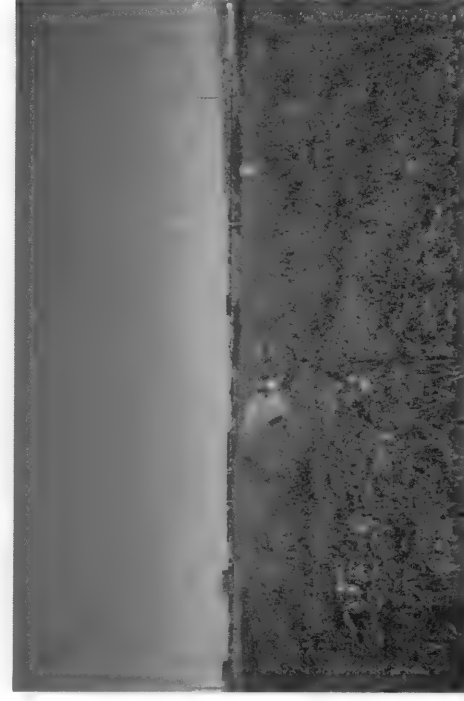


Photo 8. Dense salt marsh vegetation at east end of Site 3.2

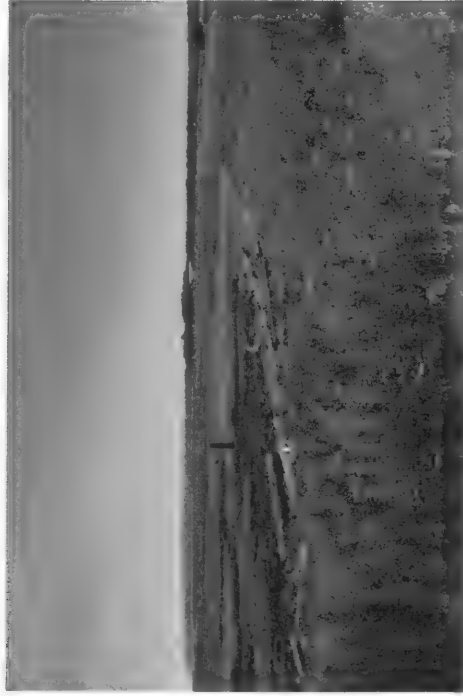


Photo 9. Heavy log accumulation in salt marsh (Site 3.3)

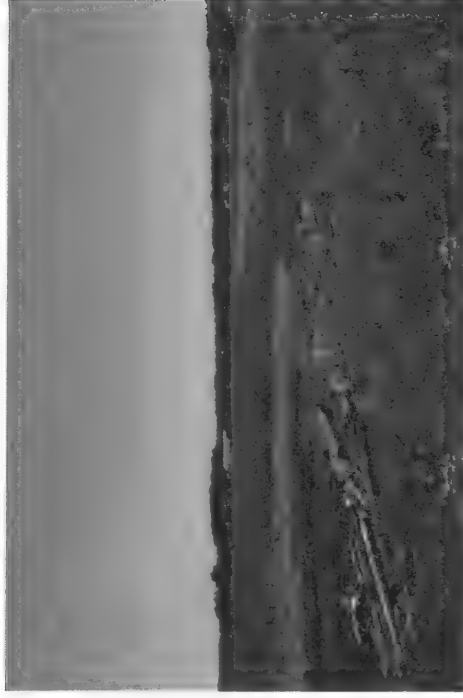


Photo 10. Heavy log accumulation in Site 3.3 at 64th Street

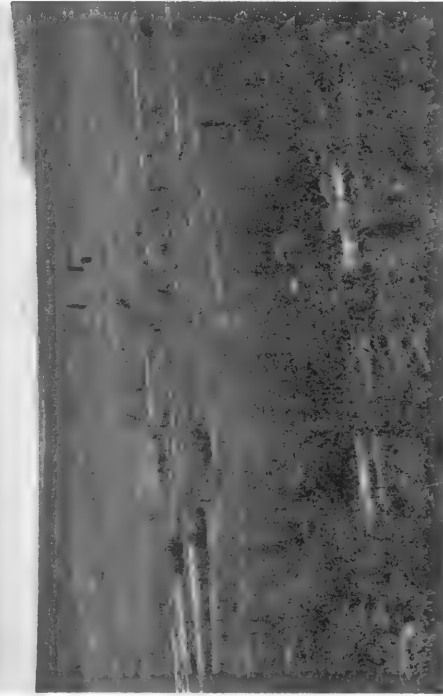


Photo 11. Intertidal salt marsh vegetation amongst logs (Site 3.3)

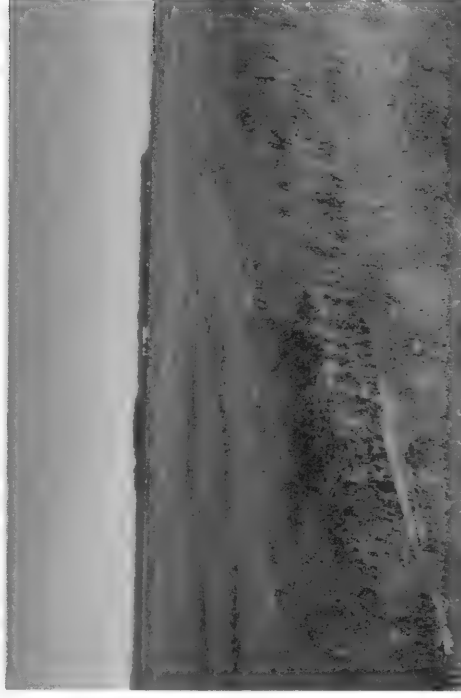


Photo 12. Unvegetated depressions in intertidal zone at Site 3.3



Photo 13. Wood debris accumulation at toe of dyke (Site 3.4)



Photo 14. Large logs in central section of Site 3.4



Photo 15. High marsh vegetation along dyke (Site 3.4)

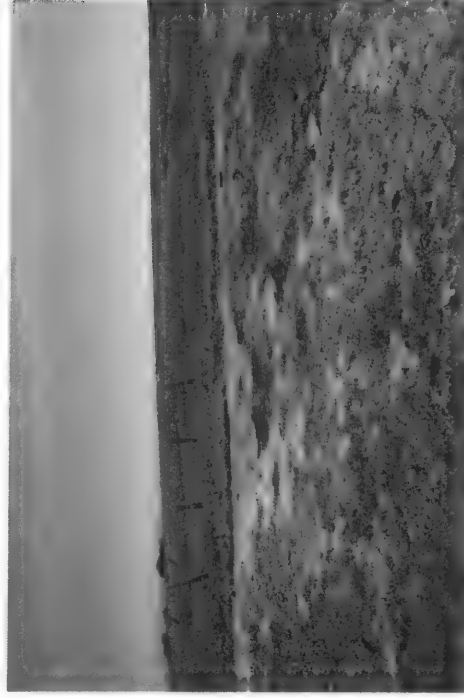


Photo 16. Unvegetated area in depression at Site 3.4

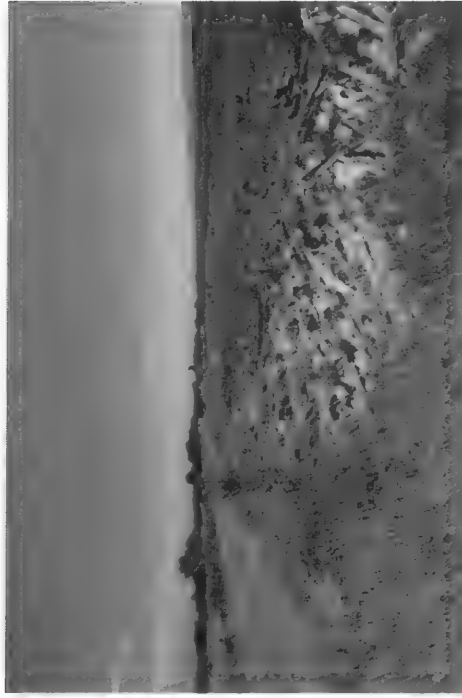


Photo 17. Heavy accumulation of logs in Site 3.5 at 72 Street

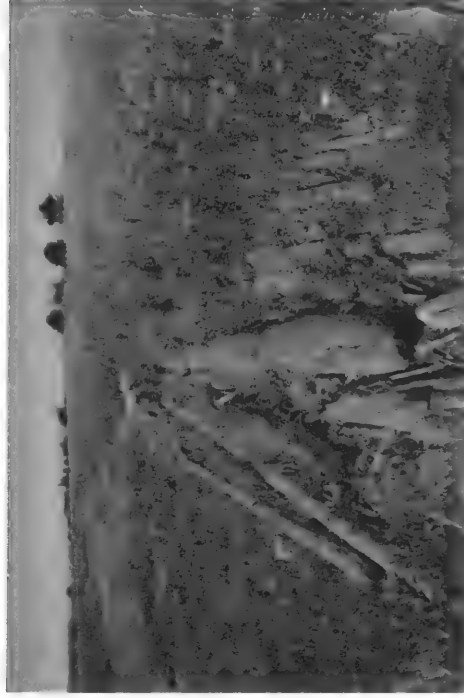


Photo 18. Log accumulation at toe of dyke in Site 3.5

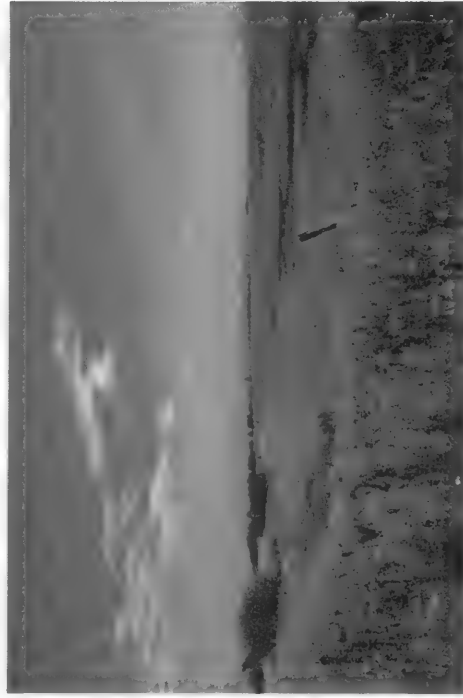


Photo 19. Goldenrod in high and pickleweed in low marshes (3.5)

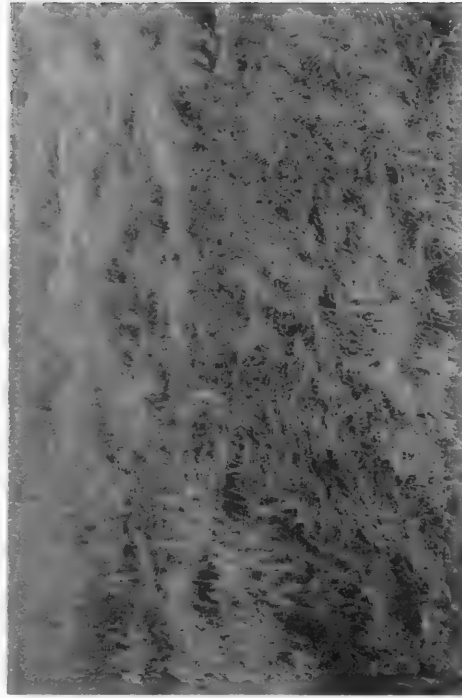


Photo 20. Dead saltgrass in intertidal depression in Site 3.5



**VANCOUVER FRASER PORT AUTHORITY
HABITAT ENHANCEMENT PROGRAM
GLENORE TIDAL MARSH PROJECT
THIRD YEAR MONITORING
FINAL REPORT**

OCTOBER 19, 2017



**GL Williams
& Associates Ltd.**



moffatt & nichol

VANCOUVER FRASER AUTHORITY
HABITAT ENHANCEMENT PROGRAM
GLENROSE TIDAL MARSH PROJECT
THIRD YEAR MONITORING
FINAL REPORT

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OCTOBER 19, 2017

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1.0 INTRODUCTION

The third annual post-construction monitoring of the Vancouver Fraser Port Authority (VFPA) Habitat Enhancement Program Glenrose Tidal Marsh Project was conducted from August 7-9, 2017, by [REDACTED] GL Williams and Associates, to document vegetation establishment, and [REDACTED] Moffatt and Nichol, to assess engineering stability. The Glenrose Tidal Marsh Project consists of three constructed intertidal marsh sites along the South Arm of the Fraser River in Delta (**Figure 1**):

- Glenrose Downstream involved construction of an intertidal marsh bench behind a rock riprap berm;
- Glenrose Cannery involved overlaying an intertidal rock riprap apron with soil; and,
- Gunderson Slough Mudflat involved placement of soil between rock groins to raise elevations of unvegetated mudflat.

The Habitat Enhancement Program (HEP) was initiated in 2012 with Fisheries and Oceans Canada (DFO) with the signing of the **Working Agreement Concerning Procedures for Development and Operation of the VFPA Habitat Bank**. The agreement builds on previous port habitat banking efforts conducted in the Fraser River estuary to create, restore and enhance fish habitat to offset potential future impacts from development projects.

This annual report addresses requirements of VFPA's Post-Construction Monitoring Plan (March 2015) and adds to the monitoring data collected in 2015 and 2016 (Williams 2015; Williams and Tranmer 2016). The third post-construction monitoring survey conducted in August 2017 consisted of recording plant species and coverage at peak biomass, topographical survey using RTK GPS, and engineering assessment. This report provides a summary of the data collected and photo-documentation for the third year monitoring program and provides recommendations for future work.

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Figure 1 Location of the three VFPA Glenrose Tidal Marsh Project sites in Delta on the South Arm of the Fraser River; Glenrose Downstream, Glenrose Cannery and Gunderson Slough Mudflat (Source: 2014 aerial base map from Deltamap).

2.0 2017 MONITORING PROGRAM METHODS

The 2017 Glenrose Tidal Marsh monitoring program was conducted by [REDACTED] GL Williams & Associates, and [REDACTED] Moffatt & Nichol, with topographical surveying using RTK GPS by Van Bower Construction Services. The program focused on two main components:

- marsh vegetation establishment; and,
- stability of constructed habitat and engineering assessment.

2.1 MARSH VEGETATION

The vegetation survey methods followed the approach used in 2015 and 2016 except that vegetation sampling was conducted on August 7 and 8 prior to the topographical survey and engineering assessment on August 9. For each site, marsh vegetation transects and quadrats positions and elevations were surveyed using a RTK GPS, and biological and engineering features were documented and surveyed as required by the engineer and biologist. A total of 20 sample quadrats were selected along the transects at each of the three sites to ensure adequate representative coverage of the establishing vegetation community (James-Pirri 2007). Vegetation monitoring was scheduled for August 7th and 8th to coincide with the period of peak plant biomass for sedge (Kistritz 1983) and daylight low tides.

The sampling transects and quadrats for each site are shown in **Figures 2-4**. Reference quadrats were selected along transects in the Alex Fraser compensation marsh located downstream of the Glenrose Downstream site, in the tidal marsh immediately upstream of Glenrose Cannery, and in selected quadrats along the edge of the existing natural marsh along the shore at the Gunderson Slough Mudflat site.

Marsh vegetation coverage was assessed using 1-m² quadrats, delineated with aluminium metre sticks, in the constructed and reference marshes. Plant coverage within the 1-m² quadrat was estimated according to a modified Braun-Banquet method consisting of five classes of cover: class 5 = 76-100%; class 4 = 51-75%, class 3 = 26-50%, class 2 = 5-25%, and class 1 = <5%. Species identification followed Hitchcock *et al.* (1984), using the updated taxonomy of (Kozloff 2005). Each quadrat and incidental observations were documented using a Nikon D7000 digital camera equipped with a 18-300 mm zoom lens. The marsh sampling protocol has been developed by GL Williams & Associates and has been used to assess numerous DFO-authorized marsh habitat compensation projects in the Fraser River estuary. The data obtained effectively demonstrate vegetation establishment and project compliance.

Trial marsh enclosures were installed in 2014 to prevent geese grazing of transplanted vegetation at the Downstream and Gunderson sites, followed by experimental plantings in enclosures E1 and E2 2016 and enclosures E3 and E4 in 2017 at Gunderson (Figure 4). Vegetation establishment in the large-scale enclosures was also assessed.

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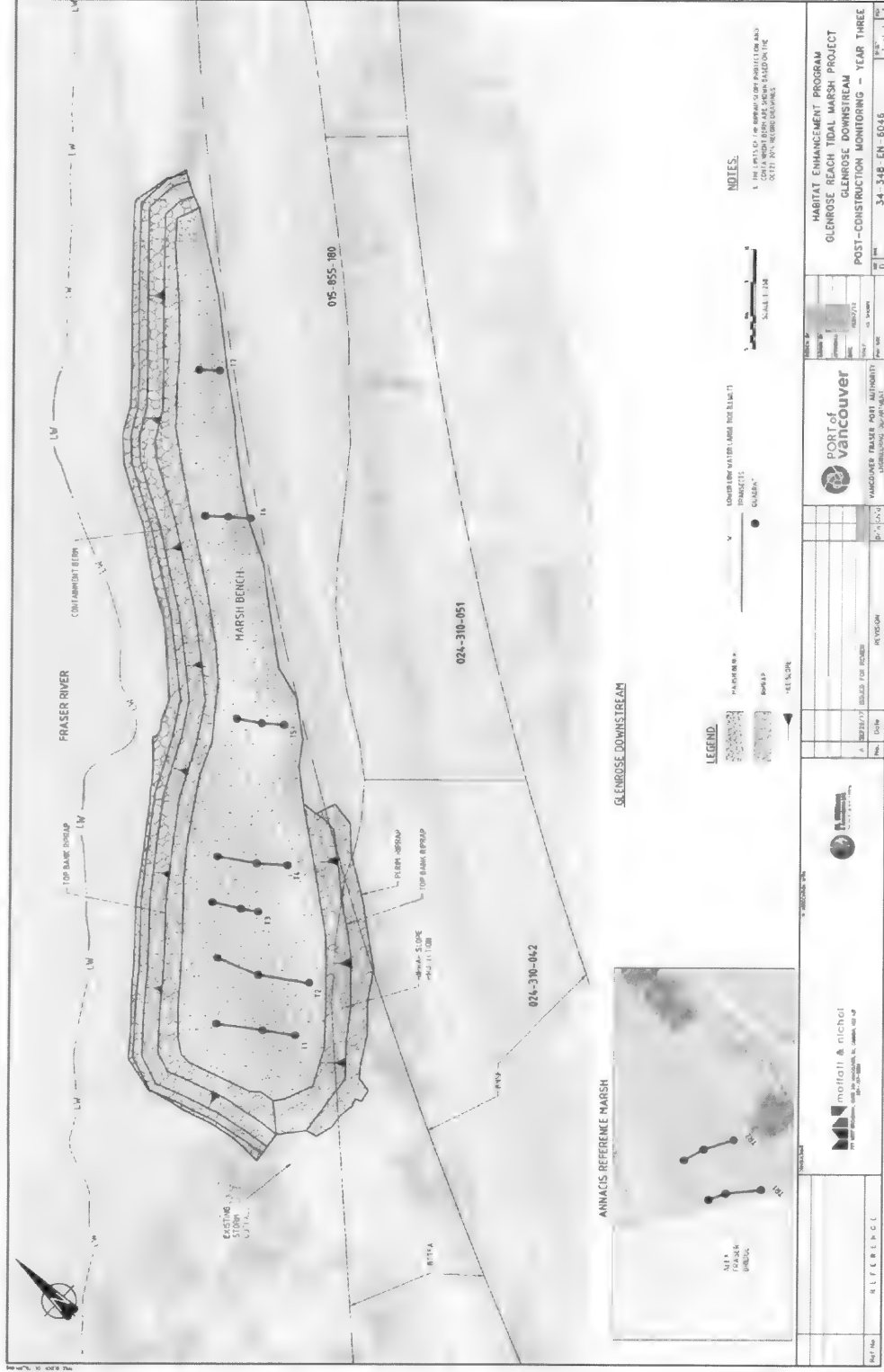
2.1.1 Large Scale Enclosure Trial Project

In 2017, alternate enclosure designs to prevent geese grazing of marsh vegetation were tested at the Gunderson site. The alternate designs, developed from an initial review of Canada geese life history traits and applied measures to restrict access, used ropes instead of plastic Vexar safety fencing to create the enclosures. Two rope enclosures were tested, one used polyethylene rope (i.e. E3 in Figure 4) and the second used biodegradable twine (i.e. E4 in Figure 4). Secondary objectives included developing a more cost-effective approach that could be suitable for large scale marsh plantings that are proposed under the VFPA HEP program.

The square enclosures measured 17 m wide by 27 m long for E3 and 15 m wide by 25 m long for E4, and were erected in open areas downstream of the Vexar enclosures E1 and E2. Wooden posts were used to support the ropes that were attached with metal staples. Ropes were strung around the enclosure perimeter at 20, 40 and 60 cm heights, which have been reported to be effective to prevent geese access (Ransom 1981; PWGSC 2011). Polyethylene ropes were also strung from the top of the posts to create a diamond pattern to prevent geese from flying into the enclosures.

For each enclosure, eight intertidal marsh species from Peel's Nurseries were used for transplanting, comprised of four species that geese preferred and four species that geese did not prefer. The design included strategically transplanting plugs at a planting density of 4 plugs/m²; non-preferred species along the inside edge to create a buffer for the preferred species that were planted further into the enclosure. The non-preferred plant species included common cattail (*Typha latifolia*), hardstem bulrush (*Schoenoplectus acutus*), common rush (*Juncus effusus*), and Baltic rush (*Juncus arcticus*). The centre preferred species included Lyngbye's sedge (*Carex lyngbyei*), tapered rush (*Juncus acuminatus*), spikerush (*Eleocharis palustris*), and wapato (*Sagittaria latifolia*). Each enclosure was planted with a total of 1000 plants comprised of the eight species.

The results of the alternate large-scale enclosures transplanting project is included in section 3.3.



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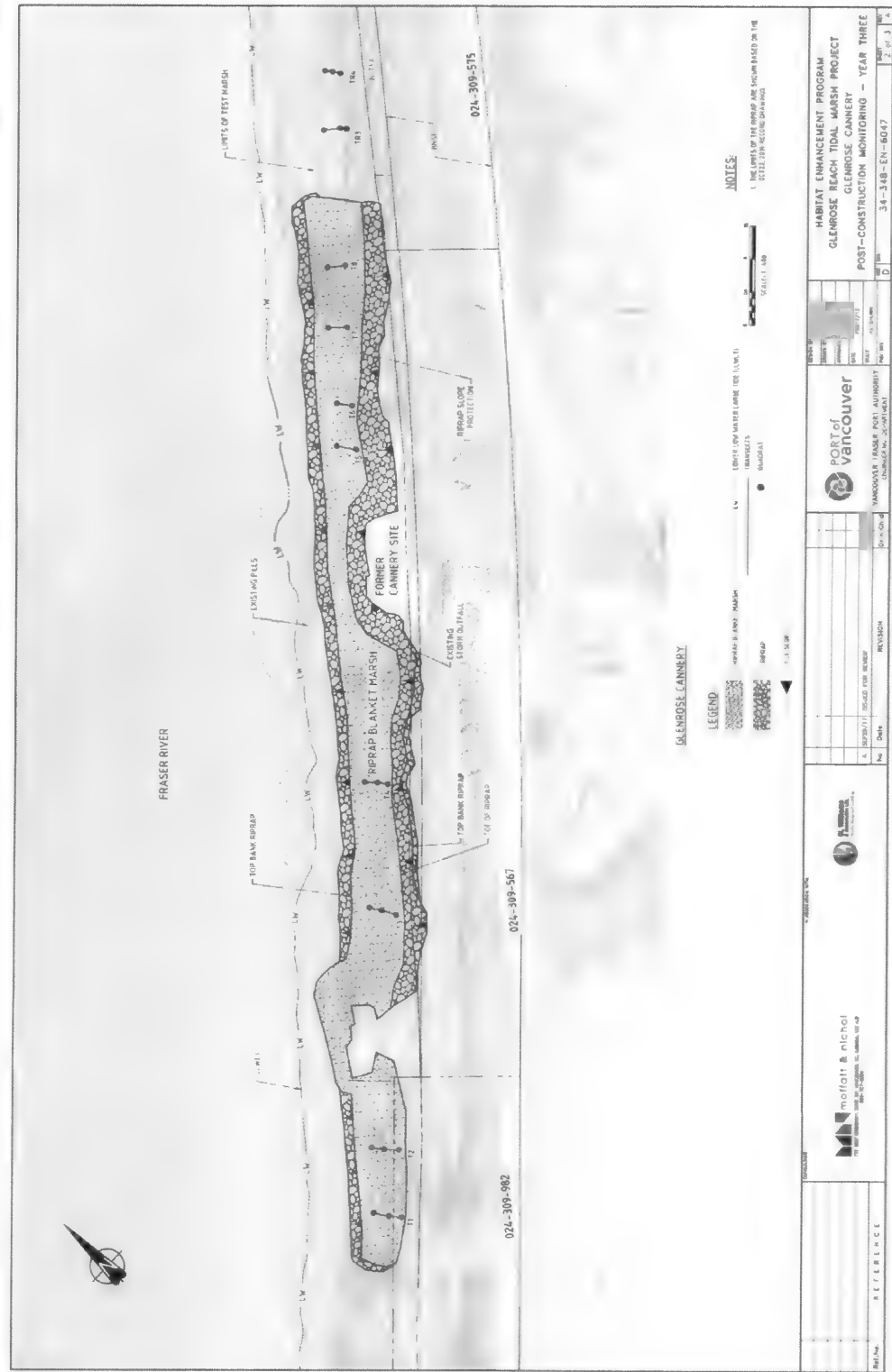


Figure 3 Glenrose Cannery post-construction monitoring.

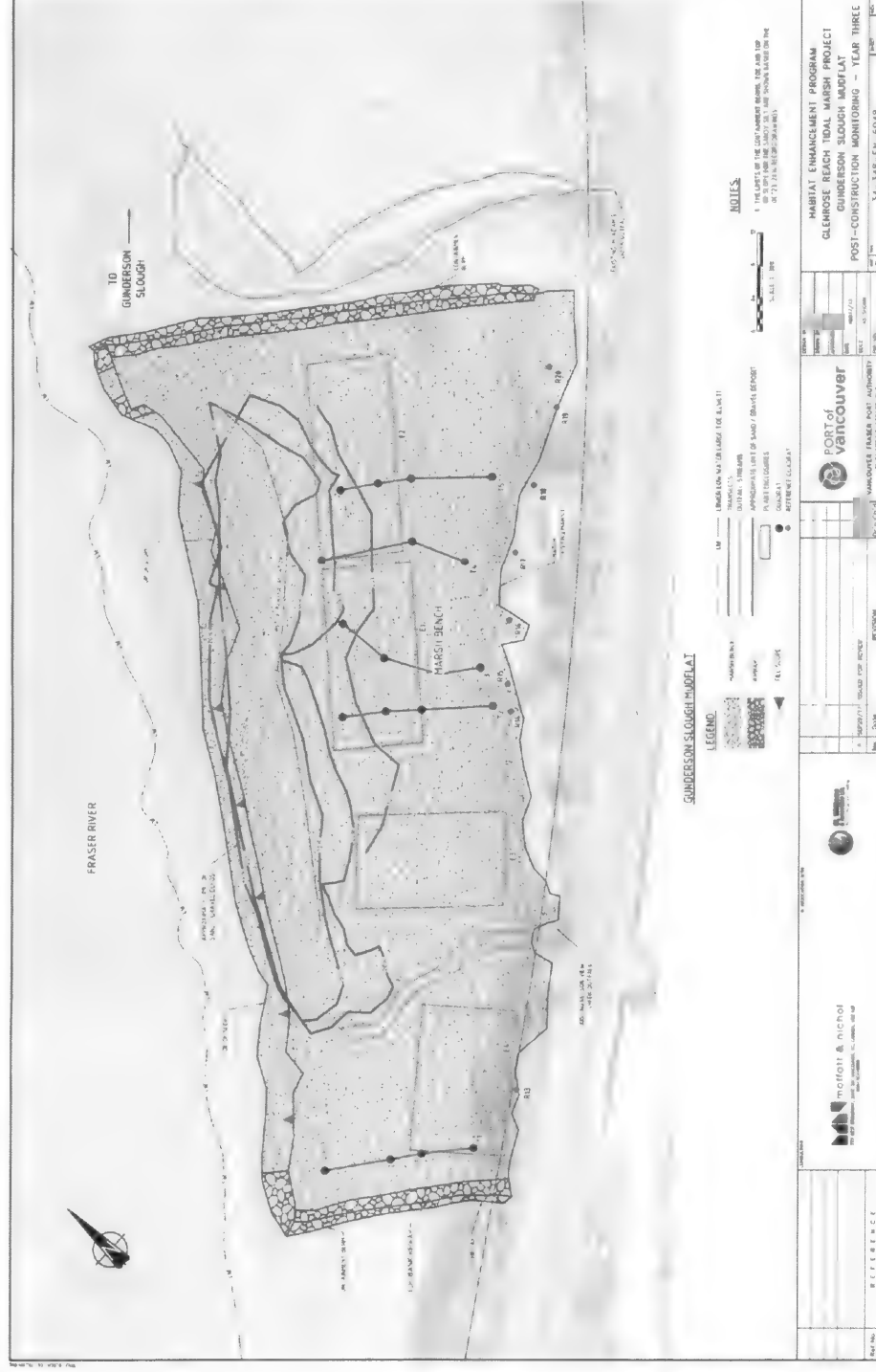


Figure 4 Gunderson Slough Mudflat post-construction monitoring and large-scale enclosure transplant.

3.0 RESULTS

3.1 GLENROSE DOWNSTREAM INTERTIDAL MARSH SITE

At the Glenrose Downstream constructed marsh bench and reference marsh under the Alex Fraser bridge, the vegetation establishment was assessed on August 7 and an assessment of the biological features and engineering stability, including GPS RTK survey, was conducted on August 9, 2017. The quadrat sampling data are shown in **Appendix A**.

In August 2017, intertidal vegetation establishment was dense over the entire marsh bench (**Photo 1**). Transplanting Baltic rush, a mat forming species, was one of the biological design features of the planting plan to address incoming vessel generated waves. Baltic rush had successfully established a dense berm around most of the perimeter of the marsh (**Photo 2**). In small areas where it had not formed dense cover, naturally recruited water starwort and pondweed were growing. Marsh vegetation had established well inside the Baltic rush in the center of the marsh bench (**Photo 3**) and in the narrower, partially shaded upstream section (**Photo 4**).

The reference marsh under Alex Fraser Bridge, which was situated within a more protected location, had dense plant cover in August 2017 (**Photos 5 and 6**). The reference marsh transects extended from the higher elevation marsh at the base of the rock riprap to the low elevation marsh at the edge of the unvegetated mudflat.

Transplanted vegetation within the area of the former three fenced enclosures was dense (**Photo 7**). The species had grown to maximum height with the protective fencing that prevented Canada geese grazing and expansion of transplanted vegetation. Canada geese grazing impacts were minimal in the densely vegetated Downstream and reference marshes.

Logs and wood debris are transported down the Fraser River and several large logs were observed in the constructed marsh (**Photo 8**). Most were stranded along the dike rip rap but several were observed within the marsh vegetation. Most of the logs appear to be washed downstream during high winter tides because no new log accumulations were observed in the marsh in August 2017.

Plant coverage at the Glenrose Downstream marsh was dense in all quadrats sampled and was similar to the reference marsh (**Figure 5**). The plant coverage data showed complete plant coverage in three growing seasons following initial transplant in 2015. The reference marsh is a mature marsh and had dense coverage in all quadrats over the sampling period. Individual quadrat vegetation coverage data for the Glenrose Downstream and reference marshes are presented in **Appendix A, Tables A-1 and A-4**, respectively.

A total of 20 marsh plant species was recorded within the Glenrose Downstream marsh, comprised of the six-transplanted species and 14 naturally recruited species (**Table 1; Appendix A, Table A-1**). Baltic rush and Lyngbye's sedge, both transplanted species and pondweed, nodding beggarticks and water starwort, all naturally recruited species, were recorded most frequently in the quadrats sampled. Purple loosestrife, an invasive plant in freshwater and brackish marshes, was present but had a low frequency of occurrence in the vegetation quadrats sampled (**Table 1**). The plant diversity was similar in the reference marsh, which also had 20 species (**Table 1; Appendix A, Table A-4**). Five species were present in 50% or more of the quadrats sampled, including water forget-me-not, swamp horsetail, Lyngbye's sedge, pondweed, and common cattail (**Table 1**).

Marsh bench surface elevations were similar to 2015 and 2016 (**Figure 2**). The intertidal marsh vegetation ranged from 0.5 m geodetic (GD) to approximately 1.0 m GD. The reference marsh, with the rock berm crest elevation ranging from 0.6 m to 0.7 m GD up to 0.5 m to 1.1 m GD at the base of the shoreline riprap armouring (**Figure 2**). The reference marsh ranged from 0.8 m GD at the base of the riprap to 0.3 m to 0.4 m GD in the lower marsh. The rock riprap berm and shoreline armouring was observed to be stable and functioning as designed.

The Downstream marsh design is successful and providing ideal conditions for marsh establishment. Marsh coverage and plant diversity, achieved in only three growing seasons, is high and equivalent to the mature reference marsh. The constructed habitat is providing high quality habitat for fish and wildlife.

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Photo 1. Glenrose Downstream marsh



Photo 2. Dense Baltic rush growth along riprap berm



Photo 3. Dense marsh vegetation in center marsh

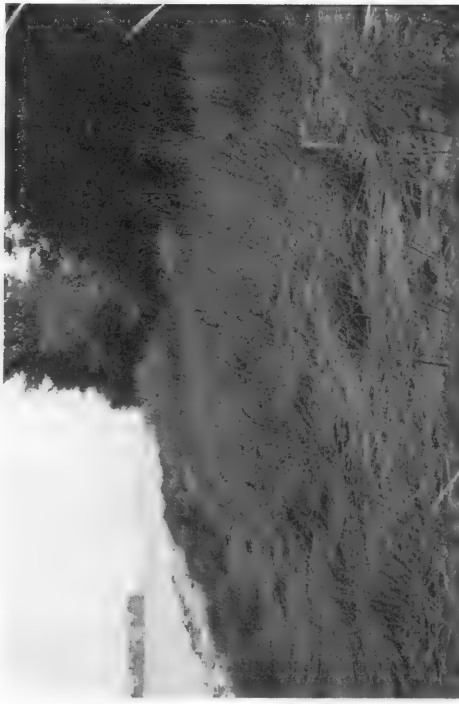


Photo 4. Complete plant coverage in upstream section

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Photo 5. Reference marsh under Alex Fraser Bridge



Photo 6. Dense plant growth along reference marsh transect



Photo 7. Tall marsh plants within former fenced enclosure



Photo 8. Large log stranded along toe of bank riprap

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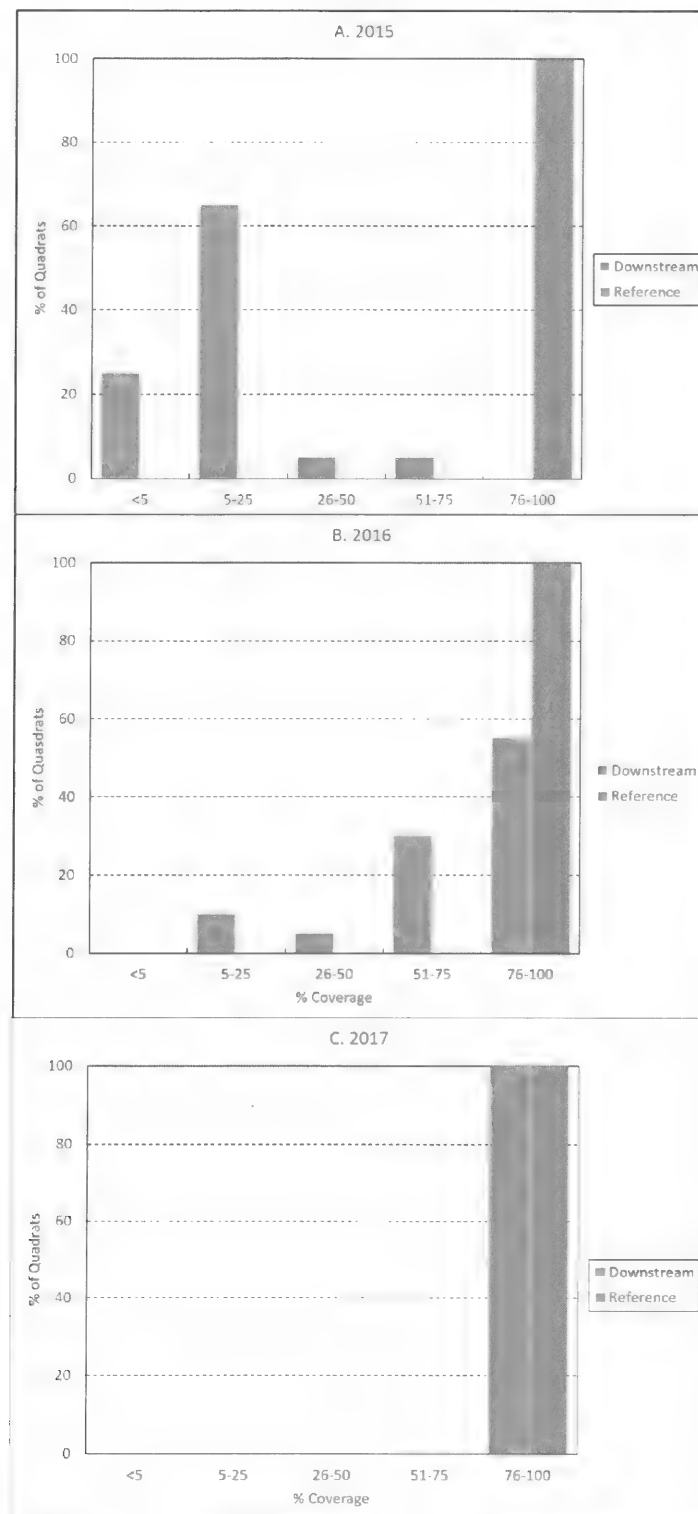


Figure 5 Glenrose Downstream marsh plant coverage trends from 2015 to 2017.

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Table 1 Frequency of occurrence (%) of marsh species in quadrats sampled at Glenrose Downstream constructed and reference marshes on August 7, 2017.

Species		% Frequency of Occurrence	
Scientific Name	Common Name	Constructed	Reference
<i>Agrostis stolonifera</i>	creeping bentgrass	5	33
<i>Angelica</i> sp.	kneeling angelica		17
<i>Bidens cernua</i>	nodding beggarticks	45	17
<i>Bolboschoenus maritimus</i>	seacoast bulrush	5	
<i>Callitriche stagnalis</i>	common water starwort	45	17
<i>Celta palustris</i>	yellow marsh marigold		17
<i>Carex lyngbyei</i> *	Lyngbye's sedge	75	67
<i>Crassula aquatica</i>	pigmyweed	5	
<i>Eleocharis palustris</i> *	spikerush	35	33
<i>Equisetum fluviatile</i>	swamp horsetail		83
<i>Isolepis cernua</i>	low clubrush	5	
<i>Juncus acuminatus</i> *	tapered rush	10	
<i>Juncus articulatis</i>	jointed rush	10	
<i>Juncus arcticid</i> *	Baltic rush	95	33
<i>Juncus effusus</i>	common rush	10	
<i>Juncus oxymora</i>	pointed rush		33
<i>Limosella aquatica</i>	mudwort	5	33
<i>Lycopus americanus</i>	American bugleweed	5	33
<i>Lythrum salicaria</i>	purple loosestrife	10	
<i>Myosotis scorpioides</i>	water forget-me-not		100
<i>Phalaris arundinacea</i>	reed canarygrass	5	17
<i>Polygonum</i> sp.	pondweed	60	50
<i>Sagittaria latifolia</i> *	arrowhead	30	17
<i>Sium suave</i>	water parsnip	20	17
<i>Symphyotrichum subspicatum</i>	Douglas' aster		17
<i>Typha latifolia</i> *	common cattail	5	50
<i>Typha angustifolia</i>	narrow-leaved cattail		33

*Denotes a transplanted species

3.2 GLENROSE CANNERY INTERTIDAL MARSH SITE

At the Glenrose Cannery constructed marsh bench and reference marsh immediately upstream, the vegetation establishment was assessed on August 7 and an assessment of the biological features and engineering stability, including GPS RTK survey, was conducted on August 9, 2017. The quadrat sampling data are shown in **Appendix A**.

The Glenrose Cannery site consists of a section downstream of the former cannery building (Cannery West) that appeared to have retained more of the placed dredged material and a section upstream (Cannery East) that appears to experience more scour and had lost most of the placed dredged material. Cannery West supported much better plant coverage in 2017 (**Photos 9 and 10**) than Cannery East (**Photo 11**). Cannery East was predominately bare rock substrate, but there was some improvement in coverage in 2017 over 2016. The reference marsh plant coverage was much more established (**Photo 12**), although there was some variability between plant coverage between the sampled quadrats (**Appendix A, Table A-4**). The reference marsh had naturally colonized the rock riprap apron placed several years ago.

The constructed marsh benches and reference marsh all showed improved plant coverage in 2017 compared with 2016 (**Figure 6**). In 2017, over 80% of the Cannery West quadrats had coverage exceeding 51% compared with just 16% of the quadrats in 2016 (**Figure 6; Appendix A, Table A-2**). In Cannery East, there was a slight improvement, with approximately 12% of the quadrats sampled in 2017 having coverage exceeding 50%. However, Cannery East had over 87% and 100% of the sampled quadrats below 50% coverage in 2017 and 2016, respectively. The higher plant coverage in the western section was attributed in part to the higher amounts of placed dredged material retained within the riprap apron compared with minimal soil retained in the scoured rock apron in the upstream section (i.e. compare **Photos 9 and 10** to **Photo 11**). The reference marsh (**Photo 12**), which is a mature marsh that has established in the riprap over a much longer time, had moderate or dense coverage in the quadrats sampled (**Figure 6; Appendix A, Table A-4**).

The Glenrose Cannery constructed marshes had higher plant diversity than the reference marsh in August 2017, with 27 species compared to 17 in the reference (**Table 2; Appendix A, Tables A-2 and A-4**). Lyngbye's sedge and Baltic rush, both transplanted species, and pondweed and jointed rush, both naturally recruited species were the most frequently recorded in the constructed marshes. In the reference marsh, seven species, including Douglas' aster, American bugleweed, Lyngbye's sedge, purple loosestrife, water forget-me-not, reed canarygrass, and pondweed were most frequently recorded.

Canada Geese grazing occurred in both the Cannery constructed and reference marshes. Randomly measured sedge in August 2017 averaged 55 cm in Cannery West, 39 cm in Cannery East, and 46 cm in the reference marsh. The Cannery marshes are more open and accessible to Canada geese than the Glenrose Downstream marsh.

The Glenrose Cannery marsh rock berm was observed to be stable and functioning as designed. The West Cannery marsh bench had a gentle slope from 0.5 m GD near the berm crest up to 0.5 m to 0.9 m GD at the toe of shoreline armouring (**Figure 3**). Cannery East was slightly higher ranging from 0.7 m GD to 1.0 m GD. The Reference marsh ranged from 0.5 m GD to 1.1 m GD in the downstream bench and 1.1 m to 1.5 m GD in the upstream bench. The lowest elevations were colonized by Baltic rush, while grasses and herbaceous species dominated the high marsh.

The Glenrose Cannery constructed marshes are narrow and exposed to river processes. Cannery East is more exposed and experiences substantial scour, while Cannery West is more protected and experiences less scour. The vegetation coverage is higher in the Cannery West that has less scour than Cannery East.

A few logs were observed in Cannery constructed and reference marshes. The marshes are quite linear and open, as well as being exposed to vessel-generated waves. However, the logs do not appear to accumulate, and are probably transported off the marsh during large tides during the winter.

The constructed intertidal benches are providing several ecological functions for fish, including feeding and rearing areas for juvenile salmon. The productivity increases where intertidal marsh vegetation has established (e.g. the reference marsh and Cannery West). In Cannery East, the habitat productivity is reduced by limited vegetation cover, which reduces inputs to the detritus food web that includes invertebrates that provide food, and cover for juvenile salmonids.

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Photo 9. Glenrose Cannery West or downstream bench



Photo 10. Glenrose Cannery upper West bench



Photo 11. Glenrose Cannery East or upstream bench



Photo 12. Reference marsh upstream of Cannery marsh



Briefing Memo

DATE: January 15, 2018

TO: Nicholas Winfield, Director General, Ecosystems Management, DFO

FROM: Gord Ruffo, Charlotte Olson

SUBJECT: Habitat Enhancement Program
Credit Withdrawal from Habitat Banks

Background

VFPA's Habitat Enhancement Program (HEP) is proactively creating and enhancing habitat that increases productivity to CRA fisheries for inclusion in its habitat bank. This approach provides VFPA with the opportunity to balance future infrastructure development with a healthy environment as banked fish habitat is withdrawn to offset infrastructure projects that result in serious harm to fish.

VFPA operates Canada's largest active habitat bank and VFPA has allocated significant funding, resources and scientific expertise to identify and create large habitat sites. Aboriginal engagement and collaboration are also key components of the development of habitat projects, with economic opportunities being provided to Aboriginal groups as part of project delivery.

DFO has identified that habitat banks are one of two offsetting measures available to proponents that have offsetting requirements with the key benefits of habitat banks being:

- **Less uncertainty** related to the effectiveness of the offsetting measures or the time required for the offsetting measures to become functional
- **Reduction in time and resources** required to issue *Fisheries Act* Authorizations, because the value of the credits within the habitat bank is known and the development of the offsetting plan is simplified

In order to realize these benefits, proponents of habitat banks must have the ability to use the deposited credits when offsetting is required. VFPA's habitat bank is a long-term initiative with habitat sites being constructed well ahead of any planned infrastructure project that may use require offsets. When an infrastructure project is identified and requires offsetting, effective withdrawal processes are required.

The process for the withdrawal of credits is identified in DFO's policy and guidelines for habitat banks and requires that habitat sites, and their associated credits, are "functional" as a pre-condition of withdrawal. The interpretation and evaluation of a site's "function", as it relates to fisheries productivity, is a critical consideration to ensure that offsetting with habitat banks is supported by DFO policy. Recent information from DFO indicates that habitat sites deposited within a habitat bank must be "fully functional" (i.e. demonstrated to be meeting or surpassing Performance Targets) before they can be considered for offsetting. This interpretation is the topic of this Briefing Memo.

Discussion Topic

The withdrawal of credits from a habitat bank involves a comprehensive evaluation of the constructed site to determine its contribution to fisheries productivity. This evaluation is

accomplished using a performance-based approach utilizing fish habitat indicators to demonstrate that the habitat project provides fisheries benefits to CRA fisheries.

As VFPA is constructing habitat projects for its habitat bank well ahead of any planned infrastructure projects that may require offsetting, the timing of future proposed withdrawals of credits is unknown. With habitat projects typically requiring 8-10 years to design, construct and develop to full function, ensuring that appropriate credits are available for use can prove to be challenging which creates a limiting factor for habitat banks.

To reduce this limiting factor and to support the viability of habitat banks, consideration for accommodating the use of "nominally functional" sites (i.e. sites having partially met the established Performance Targets) for offsetting should be made with evaluation of full function being deferred for several years. Use of "nominally functional" sites are anticipated to achieve the key benefits of habitat banks as shown below.

- | | |
|--|---|
| <ul style="list-style-type: none">✓ Less Uncertainty | <ul style="list-style-type: none">✓ 100% detailed design✓ Construction of site complete✓ Post-construction monitoring of site is in-progress✓ Performance-based results obtained using fish habitat indicators demonstrate that the site is nominally functional✓ Established formal reporting structure through VFPA's Annual Report to DFO that would ensure monitoring results are communicated to DFO |
| <ul style="list-style-type: none">✓ Reduction in Time and Resources | <ul style="list-style-type: none">✓ Detailed post-construction monitoring reports are available for DFO review✓ VFPA's established team of professionals are available to respond to DFO requests for additional information✓ Future monitoring reports are submitted annually in accordance with the terms of VFPA's agreement with DFO for habitat banking |

It should be noted that VFPA's current Working Agreement with DFO for its habitat bank provides for the use of nominally functional sites with a requirement for at least one year of additional monitoring of the site.

Example Withdrawal of Credits

To demonstrate how "nominally functional" habitat credits could be withdrawn from a habitat bank for offsetting purposes, an Example Withdrawal has been provided in Attachment 1. This example profiles VFPA's *New Brighton Park Shoreline Restoration Project* which was completed in 2017 and is now being monitored to determine if the Performance Target for the site is being achieved. A comparison is provided in this example for two different withdrawal years as follows:

- **Withdrawal Year 2019** when the habitat site is projected to be "nominally functional"
- **Withdrawal Year 2021** when the habitat site is projected to be "fully functional"

Examples of potential risks to the habitat site and to resulting fisheries benefits that could occur in the two year period between 2019 and 2021 have also been identified as well as adaptive management strategies that could be applied should the risk occur.

Summary of Proposed Policy Approach for Consideration

The benefits of offsetting through the use of habitat credits from an established habitat bank are significant and can be an effective tool for offsetting. To ensure that habitat banks remain a viable option for offsetting, DFO policy that is used to administer habitat banks must support the use of these habitat credits.

Habitat credits that are "nominally functional" can achieve the key benefits of offsetting through habitat banks. Consideration should be made to:

1. Permit proponents to propose the use (withdrawal) of "nominally functional" habitat projects from their habitat bank, based on their value at full function, in offsetting plans included in applications for Fisheries Act Authorizations
2. Require proposals for use of nominally functional habitat projects to include:
 - A detailed assessment of potential risks that could prevent the credits from achieving "full function"
 - An adaptive management strategy that would be implemented in the event that habitat site does not achieve full function
3. Include a provision in the Fisheries Act Authorization for the infrastructure project for additional monitoring of the habitat site until full function is achieved
4. Identify proponent's responsibility for ensuring habitat reaches full function in both the Fisheries Act Authorization and the proponent's agreement on habitat banking

Attachment 1

Example Withdrawal of Credits

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Example Withdrawal of Credits

Overview of Example Project

VFPA's *New Brighton Park Shoreline Restoration Project (NBP Project)* was constructed in collaboration with the Vancouver Board of Parks and Recreation with the goal to enhance fish and wildlife habitat in Burrard Inlet and to increase public access to nature. The site was selected based on its potential to benefit a broad range of fish and wildlife species and increase the overall ecological health of the area. The project enhanced a historically filled foreshore and upland area to provide high-value habitat for fish, birds and other wildlife. Notably, the saltmarsh and associated habitats provide habitat for a broad range of species; for example, juvenile salmon that migrate through Burrard Inlet, waterfowl and gulls that seek protected water during the winter, songbirds that nest in shrub thickets near water, and native bees that forage on flowering plants in meadow habitats. Key project details are:

- Date of Construction: Completed in Spring 2017
- Intended benefits to fish productivity Create approximately 10,000 m² of new fish habitat
- Current Status Post construction monitoring in progress

Performance Target

The project was developed based on the following Performance Target that will be measured using specific Fish Habitat Indicators:

Performance Target – Creation of 5,000 m² of new Marine Tidal Habitat and Construction of 5,000 m² of new riparian habitat

The targeted marine tidal habitat types were salt marsh, tidal mudflat, tidal channel and cobble beach. The targeted riparian habitat is a selection of native plant species that would be established in the area adjacent to the Marine Tidal Habitat

Fish Habitat Indicators

- Geospatial As-Built Data
- Plant Species Composition
- Vegetated Aerial Coverage (Marine Tidal Habitat)
- Plant survivorship (Riparian Habitat)
- Plant Vigour
- Presence of Invasive Plant Species

Example Withdrawal of Credits

The habitat created by the project is anticipated to be “nominally functional” by 2019 and “fully functional” by 2021. For the purposes of this example, a simplified evaluation of the project is provided with a comparison made between the fisheries benefits for withdrawals made in 2019 and 2021 respectively. Potential risks are also identified and adaptive management strategies are described.



New Brighton Park Shoreline Restoration Project

Table 1 – Comparison of Fisheries Benefits for Withdrawals made in 2019 and 2021

Performance Target: Creation of 5,000 m ² of new Marine Tidal Habitat and Creation of 5,000 m ² of Riparian Habitat		
Fish Habitat Indicator	Indicator Details	Commentary
<ul style="list-style-type: none"> Geospatial As-built Data 	Topographic information related to habitat area, elevations, slopes, etc.	<p>VFPA's habitat sites are designed by skilled professionals to provide high level of assurances for long-term stability of the site. Construction oversight is provided by the Professional Engineer responsible for the design to ensure that the project is constructed as designed. There should not be any significant changes in the geospatial conditions and it is anticipated that these conditions will remain consistent with original design.</p> <p>Potential Risk: Slope stability (low risk) – the first two years of a project are the most critical period for determining the stability of newly constructed slopes. Therefore by 2019, any significant stability issues would have been identified and appropriate adaptive management strategies implemented. These strategies could include the regrading of problematic slopes. Similarly, if slope stability issues are identified in the period between 2019 and 2021, the same adaptive management strategies could also be implemented.</p>
<ul style="list-style-type: none"> Plant Species Composition 	Identification of plant species compared with original planting prescription	<p>Planting prescriptions are prepared by wetland ecologists using current knowledge of local habitat areas to create natural, biodiverse fish habitat. The composition of plant species typically stabilizes in the first two years following planting.</p> <p>Potential Risk: Plant species composition changes from 2019 to 2021 and biodiversity is lower. Adaptive management strategies could include supplemental planting and/or soil parameter testing to identify more suitable target species and invasive plant species management.</p>
<ul style="list-style-type: none"> Vegetated Aerial Coverage (Marine Tidal Habitat) 	Plant densities and extent of coverage on an aerial basis	<p>Areas of the Marine Tidal Habitat that have been designed to include aquatic plants are often subject to early stress factors such as herbivory from grazing geese. Plants are most susceptible during the first two years following planting. Fencing is typically used to prevent access by geese to the young aquatic plants. After these plants become established, the effects of herbivory are significantly reduced.</p> <p>Potential Risk: Vegetative spread does not occur at the rate anticipated. Adaptive management strategies could include supplemental planting, soil parameter testing to determine nutrient availability compared with nearby reference habitats and/or site observations to determine the effects of grazing or other disturbance that would suppress vegetative growth.</p>
<ul style="list-style-type: none"> Plant Survivorship (Riparian Habitat) 	Plant quantities when compared to original planting prescription	<p>Plant survivorship of riparian plants can usually be confirmed in the first two years of planting as issues related to poor quality plant stock, soil quality, drainage and plant competition would have been identified.</p> <p>Potential Risk: Plant survivorship declines from 2019 to 2021 – If dead or dying plants are noted as part of the monitoring program, adaptive management strategies (such as replanting with an alternate species) would be applied.</p>
<ul style="list-style-type: none"> Plant Vigour 	Plant height, stem diameter, plant colour, stress indicators, etc.	<p>Plant vigour is projected to be similar to the surrogate site by 2021 where the plants would be in their fourth growing season. By 2019, it is anticipated that plant vigour should be approximately 50% of the vigour of the surrogate site.</p> <p>Potential Risk: Risk that vigour does not increase as anticipated from 2019 to 2021. Adaptive management strategies could include supplemental planting, soil parameter testing to determine nutrient availability compared with nearby reference habitats and/or site observations to determine the effects of grazing or other disturbance that would suppress vegetative growth.</p>
<ul style="list-style-type: none"> Presence of Invasive Plant Species 	Identification of invasive species and plant numbers and locations	<p>Invasive plant species could become established at any point in time in the life of the habitat site. The most effective approach to the management of invasive plants is to ensure that the selected native plants become well-established to afford strong competition against the invasive plants. Monitoring for invasive plant species, and their subsequent removal, will be a continuous process for banked habitat sites.</p> <p>Potential Risk: Monitoring identifies the presence of invasive plants in the period between 2019 and 2021. Adaptive management strategies will include the removal of the invasive species and potential incorporation of other plant species or site conditions that could provide additional competition to the invasive plants.</p>

From: [Ruffo, Gord](#)
To: [Winfield, Nicholas](#)
Cc: [Reid, Rebecca](#); [Nutton, Byron](#); [Olson, Charlotte](#); [Assier, Gilles](#)
Subject: VFPA's Habitat Bank: follow-up discussions
Date: 2018-January-19 6:13:27 PM
Attachments: [image001.png](#)
[Briefing Memo - Credit Withdrawal from Habitat Banks.pdf](#)

Hi Nic

With 2018 now well underway, our Habitat Enhancement Program is mapping out what we need to achieve this year. At the top of our priority list is for us to secure a new agreement with DFO for habitat banking (our current extension expires in September 2018). This agreement is important as it enables us to continue developing habitat projects.

As part of our discussions with you late last year, we identified an issue related to the withdrawal of habitat credits from the habitat bank (i.e. withdrawal of "nominally functional" habitat versus "fully functional" habitat). We had identified that restricting withdrawals from the habitat bank to "fully functional" habitat imposed significant limitations on the use and viability of a habitat bank. We had also offered to provide more information related to this in the form of an "example withdrawal" using nominally functional habitat. Attached to this email is a Briefing Memo that describes the issues related to topic. Your review and comments would be greatly appreciated.

Key upcoming activities for our program are:

1. Meeting with Tsleil-Waututh Nation: John Konovsky has requested a joint meeting with DFO and VFPA to discuss our new proposed habitat banking arrangement. This meeting will be scheduled in the very near future.
2. Finalization of VFPA's Arrangement on Habitat Banking: We are working with Byron Nutton on DFO expectations for Aboriginal consultation as well as a few key provisions in the Arrangement.

As a separate note, Sarah Goodman from the Prime Minister's Office has requested a briefing on our Habitat Enhancement Program. It is anticipated that this meeting will be scheduled in the next few weeks and we will use the opportunity to profile our work on developing habitat projects, our engagement/collaboration with Aboriginal groups and a description on how we manage our habitat bank. I thought I should let you know that this meeting is occurring.

Please contact me should you have any questions on the Briefing Memo and any comments or feedback from you or your staff would be greatly appreciated. It would also be appreciated if we could follow-up with you in a couple of weeks for further discussion.

I have included Rebecca Reid and Byron Nutton on this email to ensure that they have the information that we are providing to you.

Thanks for your assistance Nic.

Gord Ruffo P.Eng.
Program Manager
Habitat Enhancement Program



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Briefing Memo

DATE: January 15, 2018

TO: Nicholas Winfield, Director General, Ecosystems Management, DFO

FROM: Gord Ruffo, Charlotte Olson

SUBJECT: Habitat Enhancement Program
Credit Withdrawal from Habitat Banks

Background

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- **Reduction in time and resources** required to issue *Fisheries Act* Authorizations, because the value of the credits within the habitat bank is known and the development of the offsetting plan is simplified

In order to realize these benefits, proponents of habitat banks must have the ability to use the deposited credits when offsetting is required. VFPA's habitat bank is a long-term initiative with habitat sites being constructed well ahead of any planned infrastructure project that may use require offsets. When an infrastructure project is identified and requires offsetting, effective withdrawal processes are required.

The process for the withdrawal of credits is identified in DFO's policy and guidelines for habitat banks and requires that habitat sites, and their associated credits, are "functional" as a pre-condition of withdrawal. The interpretation and evaluation of a site's "function", as it relates to fisheries productivity, is a critical consideration to ensure that offsetting with habitat banks is supported by DFO policy. Recent information from DFO indicates that habitat sites deposited within a habitat bank must be "fully functional" (i.e. demonstrated to be meeting or surpassing Performance Targets) before they can be considered for offsetting. This interpretation is the topic of this Briefing Memo.

Discussion Topic

The withdrawal of credits from a habitat bank involves a comprehensive evaluation of the constructed site to determine its contribution to fisheries productivity. This evaluation is

accomplished using a performance-based approach utilizing fish habitat indicators to demonstrate that the habitat project provides fisheries benefits to CRA fisheries.

As VFPA is constructing habitat projects for its habitat bank well ahead of any planned infrastructure projects that may require offsetting, the timing of future proposed withdrawals of credits is unknown. With habitat projects typically requiring 8-10 years to design, construct and develop to full function, ensuring that appropriate credits are available for use can prove to be challenging which creates a limiting factor for habitat banks.

To reduce this limiting factor and to support the viability of habitat banks, consideration for accommodating the use of "nominally functional" sites (i.e. sites having partially met the established Performance Targets) for offsetting should be made with evaluation of full function being deferred for several years. Use of "nominally functional" sites are anticipated to achieve the key benefits of habitat banks as shown below.

- | | |
|--|---|
| <ul style="list-style-type: none">✓ Less Uncertainty | <ul style="list-style-type: none">✓ 100% detailed design✓ Construction of site complete✓ Post-construction monitoring of site is in-progress✓ Performance-based results obtained using fish habitat indicators demonstrate that the site is nominally functional✓ Established formal reporting structure through VFPA's Annual Report to DFO that would ensure monitoring results are communicated to DFO |
| <ul style="list-style-type: none">✓ Reduction in Time and Resources | <ul style="list-style-type: none">✓ Detailed post-construction monitoring reports are available for DFO review✓ VFPA's established team of professionals are available to respond to DFO requests for additional information✓ Future monitoring reports are submitted annually in accordance with the terms of VFPA's agreement with DFO for habitat banking |

It should be noted that VFPA's current Working Agreement with DFO for its habitat bank provides for the use of *nominally functional* sites with a requirement for at least one year of additional monitoring of the site.

Example Withdrawal of Credits

To demonstrate how "nominally functional" habitat credits could be withdrawn from a habitat bank for offsetting purposes, an Example Withdrawal has been provided in Attachment 1. This example profiles VFPA's *New Brighton Park Shoreline Restoration Project* which was completed in 2017 and is now being monitored to determine if the Performance Target for the site is being achieved. A comparison is provided in this example for two different withdrawal years as follows:

- **Withdrawal Year 2019** when the habitat site is projected to be "nominally functional"
- **Withdrawal Year 2021** when the habitat site is projected to be "fully functional"

Examples of potential risks to the habitat site and to resulting fisheries benefits that could occur in the two year period between 2019 and 2021 have also been identified as well as adaptive management strategies that could be applied should the risk occur.

Summary of Proposed Policy Approach for Consideration

The benefits of offsetting through the use of habitat credits from an established habitat bank are significant and can be an effective tool for offsetting. To ensure that habitat banks remain a viable option for offsetting, DFO policy that is used to administer habitat banks must support the use of these habitat credits.

Habitat credits that are "nominally functional" can achieve the key benefits of offsetting through habitat banks. Consideration should be made to:

1. Permit proponents to propose the use (withdrawal) of "nominally functional" habitat projects from their habitat bank, based on their value at full function, in offsetting plans included in applications for Fisheries Act Authorizations
2. Require proposals for use of nominally functional habitat projects to include:
 - A detailed assessment of potential risks that could prevent the credits from achieving "full function"
 - An adaptive management strategy that would be implemented in the event that habitat site does not achieve full function
3. Include a provision in the Fisheries Act Authorization for the infrastructure project for additional monitoring of the habitat site until full function is achieved
4. Identify proponent's responsibility for ensuring habitat reaches full function in both the Fisheries Act Authorization and the proponent's agreement on habitat banking

Attachment 1

Example Withdrawal of Credits

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Example Withdrawal of Credits

Overview of Example Project

VFPA's *New Brighton Park Shoreline Restoration Project (NBP Project)* was constructed in collaboration with the Vancouver Board of Parks and Recreation with the goal to enhance fish and wildlife habitat in Burrard Inlet and to increase public access to nature. The site was selected based on its potential to benefit a broad range of fish and wildlife species and increase the overall ecological health of the area. The project enhanced a historically filled foreshore and upland area to provide high-value habitat for fish, birds and other wildlife. Notably, the saltmarsh and associated habitats provide habitat for a broad range of species; for example, juvenile salmon that migrate through Burrard Inlet, waterfowl and gulls that seek protected water during the winter, songbirds that nest in shrub thickets near water, and native bees that forage on flowering plants in meadow habitats. Key project details are:

- | | |
|--|--|
| • Date of Construction: | Completed in Spring 2017 |
| • Intended benefits to fish productivity | Create approximately 10,000 m ² of new fish habitat |
| • Current Status | Post construction monitoring in progress |

Performance Target

The project was developed based on the following Performance Target that will be measured using specific Fish Habitat Indicators:

Performance Target – Creation of 5,000 m² of new Marine Tidal Habitat and Construction of 5,000 m² of new riparian habitat

The targeted marine tidal habitat types were salt marsh, tidal mudflat, tidal channel and cobble beach. The targeted riparian habitat is a selection of native plant species that would be established in the area adjacent to the Marine Tidal Habitat

Fish Habitat Indicators

- | | |
|--|---|
| • Geospatial As-Built Data | • Plant survivorship (Riparian Habitat) |
| • Plant Species Composition | • Plant Vigour |
| • Vegetated Aerial Coverage (Marine Tidal Habitat) | • Presence of Invasive Plant Species |

Example Withdrawal of Credits

The habitat created by the project is anticipated to be "nominally functional" by 2019 and "fully functional" by 2021. For the purposes of this example, a simplified evaluation of the project is provided with a comparison made between the fisheries benefits for withdrawals made in 2019 and 2021 respectively. Potential risks are also identified and adaptive management strategies are described.



New Brighton Park Shoreline Restoration Project

Table 1 – Comparison of Fisheries Benefits for Withdrawals made in 2019 and 2021

Performance Target: Creation of 5,000 m² of new Marine Tidal Habitat and Creation of 5,000 m² of Riparian Habitat		
Fish Habitat Indicator	Indicator Details	Commentary
<ul style="list-style-type: none"> • Geospatial As-built Data 	Topographic information related to habitat area, elevations, slopes, etc.	<p>VFPA's habitat sites are designed by skilled professionals to provide high level of assurances for long-term stability of the site. Construction oversight is provided by the Professional Engineer responsible for the design to ensure that the project is constructed as designed. There should not be any significant changes in the geospatial conditions and it is anticipated that these conditions will remain consistent with original design'</p> <p>Potential Risk: Slope stability (low risk) – the first two years of a project are the most critical period for determining the stability of newly constructed slopes. Therefore by 2019, any significant stability issues would have been identified and appropriate adaptive management strategies implemented. These strategies could include the regrading of problematic slopes. Similarly, if slope stability issues are identified in the period between 2019 and 2021, the same adaptive management strategies could also be implemented.</p>
<ul style="list-style-type: none"> • Plant Species Composition 	Identification of plant species compared with original planting prescription	<p>Planting prescriptions are prepared by wetland ecologists using current knowledge of local habitat areas to create natural, biodiverse fish habitat. The composition of plant species typically stabilizes in the first two years following planting.</p> <p>Potential Risk: Plant species composition changes from 2019 to 2021 and biodiversity is lower. Adaptive management strategies could include supplemental planting and/or soil parameter testing to identify more suitable target species and invasive plant species management.</p>
<ul style="list-style-type: none"> • Vegetated Aerial Coverage (Marine Tidal Habitat) 	Plant densities and extent of coverage on an aerial basis	<p>Areas of the Marine Tidal Habitat that have been designed to include aquatic plants are often subject to early stress factors such as herbivory from grazing geese. Plants are most susceptible during the first two years following planting. Fencing is typically used to prevent access by geese to the young aquatic plants. After these plants become established, the effects of herbivory are significantly reduced.</p> <p>Potential Risk: Vegetative spread does not occur at the rate anticipated. Adaptive management strategies could include supplemental planting, soil parameter testing to determine nutrient availability compared with nearby reference habitats and/or site observations to determine the effects of grazing or other disturbance that would suppress vegetative growth.</p>
<ul style="list-style-type: none"> • Plant Survivorship (Riparian Habitat) 	Plant quantities when compared to original planting prescription	<p>Plant survivorship of riparian plants can usually be confirmed in the first two years of planting as issues related to poor quality plant stock, soil quality, drainage and plant competition would have been identified.</p> <p>Potential Risk: Plant survivorship declines from 2019 to 2021 – If dead or dying plants are noted as part of the monitoring program, adaptive management strategies (such as replanting with an alternate species) would be applied.</p>
<ul style="list-style-type: none"> • Plant Vigour 	Plant height, stem diameter, plant colour, stress indicators, etc.	<p>Plant vigour is projected to be similar to the surrogate site by 2021 where the plants would be in their fourth growing season. By 2019, it is anticipated that plant vigour should be approximately 50% of the vigour of the surrogate site.</p> <p>Potential Risk - Risk that vigour does not increase as anticipated from 2019 to 2021. Adaptive management strategies could include supplemental planting, soil parameter testing to determine nutrient availability compared with nearby reference habitats and/or site observations to determine the effects of grazing or other disturbance that would suppress vegetative growth.</p>
<ul style="list-style-type: none"> • Presence of Invasive Plant Species 	Identification of invasive species and plant numbers and locations	<p>Invasive plant species could become established at any point in time in the life of the habitat site. The most effective approach to the management of invasive plants is to ensure that the selected native plants become well-established to afford strong competition against the invasive plants. Monitoring for invasive plant species, and their subsequent removal, will be a continuous process for banked habitat sites.</p> <p>Potential Risk: Monitoring identifies the presence of invasive plants in the period between 2019 and 2021. Adaptive management strategies will include the removal of the invasive species and potential incorporation of other plant species or site conditions that could provide additional competition to the invasive plants.</p>

From: Trager, Diana
To: [REDACTED]
Cc: Nutton, Byron; Webb, Cheryl
Subject: RE: VFPA-DFO Habitat Enhancement Agreement
Date: 2018-January-26 10:47:50 AM

s.19(1)

[REDACTED] good timing as Cheryl is actually returning to this position next week. I've cc'd her on this email so you two can connect again.

Diana

From: [REDACTED]
Sent: Friday, January 26, 2018 10:41 AM
To: Trager, Diana <Diana.Trager@dfo-mpo.gc.ca>
Cc: Nutton, Byron <Byron.Nutton@dfo-mpo.gc.ca>
Subject: VFPA-DFO Habitat Enhancement Agreement

Diana, I would like to set up a meeting with you in the near future to set up a meeting to discuss renewal of the DFO's agreement with the VFPA for their habitat bank. I previously met with Cheryl (and Byran) when she was in your position. I think its time for another check in. Thanks, [REDACTED]



Treaty, Lands, and Resources Department
Tsleil-Waututh Nation
3075 Takaya Drive
North Vancouver, BC V7H 3A8
Canada

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Nutton, Byron

Subject: VFPA Arrangement for Habitat Banking - Next Steps
Location: Conference Call

Start: Wed 2018-02-07 2:00 PM
End: Wed 2018-02-07 2:30 PM

Recurrence: (none)

Meeting Status: Not yet responded

Organizer: 'Ruffo, Gord'

Conference Call Info:

1-604-216-6040

Participant Code: 

s.16(2)(c)

From: [Ruffo, Gord](#)
To: [Nutton, Byron](#)
Cc: [Olson, Charlotte](#)
Subject: FW: VFPA's draft Arrangement
Date: 2018-February-09 2:36:37 PM
Attachments: [2017-09-26 VFPA proposed changes to DFO-VFPA Habitat Banking Arrangement....docx](#)
[Briefing Memo - Credit Withdrawal from Habitat Banks.pdf](#)

Hi Byron

Further to our discussion on VFPA's new Arrangement for Habitat Banking, I have attached the current (Sept 26) version of the draft Arrangement with the text highlighted on page 12 that describes the use of credits from the habitat bank. This provision is as follows:

"The actual productive value of a particular conservation project will be determined immediately prior to its proposed application as credit to offset a development project"

A mutual understanding of how credits can be withdrawn from a habitat bank to offset a project is critical. Subsequent to our discussions with Nic Winfield on this topic, the Briefing Memo was prepared that is titled "*Credit Withdrawal from Habitat Banks*". This Briefing Memo identifies the issues related to credit withdrawal and proposes an approach for consideration which is as follows:

Summary of Proposed Policy Approach for Consideration

The benefits of offsetting through the use of habitat credits from an established habitat bank are significant and can be an effective tool for offsetting. To ensure that habitat banks remain a viable option for offsetting, DFO policy that is used to administer habitat banks must support the use of these habitat credits.

Habitat credits that are "nominally functional" can achieve the key benefits of offsetting through habitat banks. Consideration should be made to:

- 1. Permit proponents to propose the use (withdrawal) of "nominally functional" habitat projects from their habitat bank, based on their value at full function, in offsetting plans included in applications for Fisheries Act Authorizations*
- 2. Require proposals for use of nominally functional habitat projects to include:*
 - A detailed assessment of potential risks that could prevent the credits from achieving "full function"*
 - An adaptive management strategy that would be implemented in the event that habitat site does not achieve full function*
- 3. Include a provision in the Fisheries Act Authorization for the infrastructure project for additional monitoring of the habitat site until full function is achieved*
- 4. Identify proponent's responsibility for ensuring habitat reaches full function in both the Fisheries Act Authorization and the proponent's agreement on habitat banking*

I will be following up with Nic ahead of our February 28th meeting with you but we should also discuss this issue as part of our meeting on the 28th.

Thanks

Gord Ruffo P.Eng.
Program Manager

Habitat Enhancement Program



Vancouver Fraser Port Authority

100 The Pointe, 999 Canada Place
Vancouver, B.C. Canada V6C 3T4

P: 604.665.9018 | CELL: 604.202.8022
portvancouver.com

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are duplicates of
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pages 64 to / à 69**

VFPA proposed changes dated ~~April 7, 2017~~ September 26+8, 2017

Habitat Bank Arrangement:

PORT OF VANCOUVER HABITAT BANK

Between

VANCOUVER FRASER PORT AUTHORITY

AND

HER MAJESTY THE QUEEN IN RIGHT OF CANADA, as represented by the Minister of
Fisheries and Oceans on behalf of Fisheries and Oceans Canada ("DFO")

•, 2017

PATH Number: [INSERT PATH NUMBER]

VFPA proposed changes dated April 7, 2017 ~~September 26~~ 2017

1. INTRODUCTION

This document sets out the principles of the mutual understanding between **Vancouver Fraser Port Authority ("VFPA")** and Fisheries and Oceans Canada ("DFO") (hereafter referred to as "the Participants") for the **Port of Vancouver Habitat Bank ("Habitat Bank")**.

WHEREAS:

- a. Fisheries and Oceans Canada (DFO) is responsible for the administration of the *Fisheries Act*, more specifically the fisheries protection provisions including Sections 6, 20, 21, 35, 37, and 38 related to the conservation and protection of Canada's marine and freshwater fisheries resources and their habitats from the impact of human activities. The purpose of the fisheries protection provisions, as set out in Section 6.1 of the *Fisheries Act*, is to provide for the sustainability and ongoing productivity of commercial, recreational and Aboriginal fisheries;
- b. DFO is responsible for the administration of the *Species at Risk Act* ("SARA") with respect to aquatic species other than those individuals in or on federal lands administered by the Parks Canada Agency and, in that capacity, the Minister of Fisheries and Oceans has powers and duties with respect to protecting aquatic species listed under that Act and providing for their recovery;
- c. The Fisheries Protection Policy Statement's goal is to promote compliance with the *Fisheries Act* in order to contribute to the purpose set out in section 6.1 of the *Fisheries Act*;
- d. This Arrangement does not commit DFO to the authorization of any future work, undertaking or activity requiring an authorization under paragraph 35(2)(b) of the *Fisheries Act*, or permit any future project requiring a permit under sections 73 and 74 of the *Species at Risk Act*. All future projects will be reviewed on their own merit and a decision on whether to authorize or permit will be made independent of the existence of a habitat bank arrangement. This Arrangement, and any related communications between DFO and VFPA do not constitute a representation or commitment of any kind to VFPA regarding authorization of any future projects by DFO. This Arrangement, and any related communications, moreover does not constitute a commitment that any habitat credits that may be issued to a proponent will be acceptable in the context of future applications for *Fisheries Act* authorizations or SARA permits.
- e. VFPA is a port authority established by the Government of Canada pursuant to the *Canada Marine Act* and is accountable to the federal Minister of Transport. VFPA has a mandate to facilitate Canada's trade objectives, ensuring goods are moved safely, while protecting the environment and considering local communities. In fulfilling the mandate, VFPA carries out a variety of duties, including infrastructure development to support growth and efficient operations. The Habitat Bank can support such infrastructure development by a proponent when habitat credits are acceptable in the context of future *Fisheries Act* authorizations or SARA permits.

VFPA proposed changes dated April 7, 2017 September 26/8, 2017

- f. The Participants entered into a Working Agreement dated July 31, 2012 ("Working Agreement") relating to the procedures for development and operation of a VFPA-led habitat bank for a 5 year trial period which may be mutually extended by the Participants;
- g. VFPA has undertaken several habitat creation and enhancement projects in consultation with DFO pursuant to the Working Agreement, which are included in Annex E ("Existing Projects"); and
- h. This Arrangement will replace the Working Agreement and the Existing Projects will be managed pursuant to this Arrangement.

THEREFORE, the Participants agree to the following arrangement ("Arrangement").

2. PURPOSE

To support VFPA in fulfilling its mandate (referred to in paragraph e above) by facilitating infrastructure development by a proponent when habitat credits from the Habitat Bank can be applied to meet future offsetting requirements for such development. References to "proponent" for the purposes of this Arrangement, including the Guide, shall mean VFPA and other third parties.

To replace the Working Agreement with this Arrangement and to establish revised principles for the continuation and management of the Habitat Bank by:

- establishing a working relationship between the Participants based on trust, accountability and information sharing;
- establishing a clear understandable arrangement for managing the Habitat Bank; and
- increasing certainty in the administration of the Habitat Bank.

3. OTHER GENERAL INFORMATION

The activities carried out under this Arrangement will be consistent with:

- *Fisheries Protection Policy Statement* (2013);
- *Fisheries Productivity Investment Policy: A Proponent's Guide to Offsetting* (2013); and
- *Interim Fisheries Protection Program's Guide to Proponent-led Habitat Banking* (October, 2016) ("Guide").

4. SCOPE

The scope of this Arrangement is limited to the continuation and administration of the Habitat Bank described in Annex A, and including conservation projects proposed in accordance with Annex B and the Existing Projects (described in Annex E).

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5. ROLES AND RESPONSIBILITIES

The roles and responsibilities of the VFPA are:

- Jointly managing the performance of the Arrangement with DFO;
- Identifying, designing, constructing, monitoring, maintaining, and protecting conservation project sites;
- Meeting all other applicable federal, territorial, provincial and municipal requirements that apply to conservation projects;
- Reporting on performance of conservation projects;
- Accurately maintaining a copy of the habitat credit ledger; and
- Preparing and submitting Progress Reports for the Arrangement.

The roles and responsibilities of DFO are:

- Jointly managing the performance of the Arrangement with VFPA;
- Reviewing, providing advice and confirming conservation project proposals;
- Reviewing Progress Reports, validating habitat credit balances in the habitat credit ledger, and processing habitat credit ledger transactions;
- Verifying the reported results of conservation project performance in the Progress Reports;
- When appropriate, carrying out direct monitoring (i.e., a site visit to gather and analyse samples or information in order to directly verify compliance and effectiveness) and/or carrying out indirect monitoring (i.e., an assessment of information provided in Progress Reports to verify compliance and effectiveness) of conservation project sites; and
- Reviewing and processing Progress Reports of the Arrangement;

The Participants shall fulfill their responsibilities under this Arrangement in accordance with the provisions of federal, provincial and territorial laws and regulations that govern their activities. Should a Participant not be able to perform a function under this Arrangement, the affected Participant will immediately contact the other signatories of this Arrangement so that early resolution can be reached.

6. MANAGEMENT PROVISIONS

This Arrangement establishes the following management provisions for the administration of the Habitat Bank:

- The accountability lies with the office of signatories of the Arrangement, Director, Infrastructure Sustainability, Vancouver Fraser Port Authority and Regional Director, Ecosystems Management, of DFO Pacific Region.
- The day to day administration of the Arrangement will be carried out by: Program Manager, Habitat Enhancement Program, Vancouver Fraser Port Authority; and Team Lead, Partnerships, Standards and Guidelines of DFO Pacific Region.

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7. ADMINISTRATION OF THE HABITAT BANK ARRANGEMENT

- Specific details related to the principles of the administration and operation of the Habitat Bank are included in ANNEX A;
- Conservation projects that are proposed for development are to be submitted for review and confirmation by DFO using the "Project Confirmation" template set out in ANNEX B;
- Habitat credits held within the Habitat Bank shall be tracked using the "Habitat Credit Ledger" template and frequency set out in and described in ANNEX C;
- Progress Reports shall be prepared and submitted annually in accordance with the requirements of ANNEX D;
- Existing Projects that were either constructed or are proposed for construction under the terms of the Working Agreement and identified in ANNEX E.

8. SHARING OF INFORMATION

While this Arrangement is in effect and at all times thereafter, each of DFO and VFPA and any officers, employees or agents of each of them shall treat all information, data, documents, reports and materials acquired or to which access have been given in the course of, or incidental to, the performance of this Arrangement as confidential, subject to the federal *Access to Information Act* and the *Privacy Act*. With the exception of the Arrangement, the annexes to the Arrangements and annual Progress Reports, which VFPA may disclose from time to time, the Participants shall not disclose or permit to be disclosed such information, data, documents, reports and materials, unless:

- the Participants agree to the disclosure;
- the disclosure is part of the application and review process of VFPA's Project and Environmental Review for a proposed conservation project, which would include disclosure of project-specific information, engagement information for public/stakeholder and Aboriginal groups and technical content, and the posting of on-line information;
- the disclosure is part of an application and review process of other regulatory agencies (such as Environment Canada for Disposal at Sea permit) for a proposed conservation project, which would include disclosure only as required by the such agencies;
- the disclosure relates to the sharing of conservation project plans with Aboriginal groups as part of the project confirmation process (see Annex B);
- the disclosure is to a proponent other than VFPA third party as part of the Habitat Bank Administration as described in Annex A;
- the disclosure is required by law;
- the information was obtained from the public; or
- the information is available to the public.

Commented [OC1]: This bullet was revised by VFPA as requested following a meeting with Byron N. on Sept 26/17

VFPA proposed changes dated April 7, 2017 September 26/18, 2017

9. DIFFERENCES IN INTERPRETATION AND APPLICATION

The Participants will endeavor to resolve issues regarding the implementation of this Arrangement in a timely manner using mechanisms available to the Participants. Where an issue remains unresolved, the pre-eminent jurisdiction responsible for the matter under consideration will make the final determination and seek concurrence from Director, Infrastructure Sustainability, Vancouver Fraser Port Authority and Regional Director, Ecosystems Management, of DFO Pacific Region.

10. PROGRESS REPORTS

The VFPA will prepare a progress reports using the form described in Annex D ("Progress Report") on the achievements and challenges encountered during the reporting period of this Arrangement as it relates to the purposes identified in section 2 of this Arrangement.

The Progress Report should be submitted within 90 calendar days from the conclusion of each year. A year will be considered to run from January 1 to December 31.

The Progress Report will be submitted to the Office of signatories of the Arrangement, Director, Infrastructure Sustainability, Vancouver Fraser Port Authority and Regional Director, Ecosystems Management, of DFO Pacific Region for their concurrence.

All Progress Reports will conform to the requirements set out in ANNEX D.

11. REVIEW

At the end of each five year period during which this Arrangement is in effect, the Regional Director, Ecosystems Management, of DFO Pacific Region of DFO will establish a review team consisting of Program Manager, Habitat Enhancement Program, Vancouver Fraser Port Authority and Team Lead, Partnerships, Standards and Guidelines of DFO Pacific Region of DFO or appropriately qualified third party to review the effectiveness of activities under this Arrangement. This review team will report to the Regional Director, Ecosystems Management, of DFO Pacific Region within six months of being established.

12. AMENDMENT

The Arrangement may be amended at any time in writing and by mutual consent of the Participants. An amendment will be confirmed by an exchange of letters, signed by the Participants, setting out the amendment and its effective date.

13. FINANCIAL ARRANGEMENT

This Arrangement will not impose any additional financial responsibilities on the Participants, except that each Participant will be responsible for the staff and funding costs it incurs in its own interests, related to the support of the Arrangement.

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14. DURATION, WITHDRAWAL AND TERMINATION

This Arrangement is in effect for a period of twenty years. VFPA can request a renewal of the Arrangement for an additional defined term (of no less than five years) by providing one year's written notice to the other Participant. If this Arrangement is not renewed at the expiration of the term or a renewal, and provided that VFPA is not in breach of this Arrangement, the Participants will continue to apply the terms of this Arrangement to all conservation projects that are either deposited in the Habitat Bank or have been confirmed by DFO in accordance with Annex B. [NTD: VFPA maintains its preference for a 20-year term for the Arrangement. This duration supports VFPA's significant investment in its habitat bank and provides longer-term assurances for the development of new habitat sites in the future. Should DFO policy change within this 20 year term, the Arrangement can accommodate these changes through its 5 year review process identified in Clause 11 – Review and through the provision for amending the Arrangement identified in Clause 12 – Amendment.]

15. LEGAL DISCLAIMER

This Arrangement is an expression of the mutual intentions of the Participants and is not legally binding or enforceable against them.

15.16. NOTICE

All notices to be given under this Arrangement shall be in writing and shall be sent by prepaid registered mail or facsimile transmission addressed to the Party entitled to receive the same, or delivered to such party as follows:

- if to VFPA:

Vancouver Fraser Port Authority
100 The Pointe
999 Canada Place
Vancouver, British Columbia
V6C 3T4

Attention: Director, Infrastructure Sustainability
Facsimile: 1.866.212.1688

with a copy to:

Attention: Director, Legal Services
Facsimile: 1.866.665.9062

- if to DFO:

Attention:

VFPA proposed changes dated April 7, 2017 September 26/8, 2017

Facsimile:

16.17. GENERAL

VFPA is entering into this Arrangement on its own behalf and not as agent of Her Majesty in Right of Canada.

EFFECTIVE DATE AND SIGNATURE

This Arrangement has been signed by the Regional Director of DFO Pacific Region of Fisheries and Oceans on behalf of Her Majesty the Queen in Right of Canada and by the VFPA on the dates noted below.

SIGNED IN THE PRESENCE OF:

FOR HER MAJESTY THE QUEEN IN RIGHT OF CANADA

**Regional Director,
Ecosystems Management,
of DFO Pacific Region
of Fisheries and Oceans Canada**

Witness

[INSERT NAME]_____
**Regional Director,
Ecosystems Management,
of DFO Pacific Region
of Fisheries and Oceans Canada**

Date

FOR VANCOUVER FRASER PORT AUTHORITY

Robin Silvester
President and CEO

Witness (as to both)

J. Dean Readman
Corporate Secretary

VFPA proposed changes dated ~~April 7, 2017~~ September 26/8, 2017

Date

This Arrangement comes into effect on the date that both Participants have signed above.

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ANNEX A

**HABITAT BANK DESCRIPTION AND THE PRINCIPLES FOR THE MANAGEMENT
OF THE PORT OF VANCOUVER HABITAT BANK**

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ANNEX A: HABITAT BANK DESCRIPTION AND THE PRINCIPLES FOR THE MANAGEMENT OF	
Information Required	Description
Habitat Bank Location ("Service Area")	<p>The Service Area of the Habitat Bank will include conservation projects situated geographically within the Fraser River Estuary and its tributaries, Burrard Inlet, the Strait of Georgia and its associated inlets and other areas as established from time to time as mutually agreed to by the Participants. <u>INTD: The rationale for the proposed Service Area is as follows: VFPA manages over 16,000 hectares of waterway, more than 1,000 hectares of land and approximately 350 kilometers of shoreline. Such areas includes estuarine and marine shoreline that supports a myriad of commercial, recreational and Aboriginal fisheries and fish that support these fisheries. Some of these fisheries species exhibit anadromous or migratory life histories. For example, Pacific salmon spend the adult portions of their lives feeding in the Pacific Ocean, including the Strait of Georgia, spawn in freshwater rivers and tributaries of the Fraser River and Burrard Inlet, and rear in the Fraser River estuary and along shallow marine shorelines. Habitat creation and enhancement targeted at migratory species can be planned throughout the proposed geographic service area and to the benefit of CRA species that occupy and transit the areas VFPA manages.</u></p>
Habitat Bank Administration	<p>The Habitat Bank is a long-term initiative that is used to proactively create and enhance habitat for fish and wildlife. Consistent with VFPA's mandate, this enables VFPA to balance future infrastructure development opportunities with a healthy environment.</p> <p>Conservation projects for the Habitat Bank will generally be selected based on the following considerations and criteria:</p> <ul style="list-style-type: none"> (a) <u>Need</u>: Locations characterized by low productive capacity for species and stocks of interest or species at risk will be considered as a priority for the Habitat Bank. The intent is to develop or improve habitat capacity in the Service Area where habitat is needed and in support of applicable DFO policies. (b) <u>Habitat Productivity</u>: Emphasis will be placed on creation of high value habitat types that support a large number of ecological services and species functions (e.g. eelgrass beds and low marshes). The value of productivity will be assessed in

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	<p>the context of "need" (see (a) above).</p> <p>(c) <u>Site location</u>: Sites for the Habitat Bank will be selected based on their proximity to potential development areas with significant or rare ecological habitats or where onsite habitat compensation opportunities may be limited.</p> <p>(d) <u>Feasibility and cost</u>: Coastal zone processes, river hydraulics biological productivity and ecological functioning are amongst the factors that will be used to determine the feasibility of habitat creation. In some areas it may not be possible to achieve stable self-functioning habitat due to ongoing influences of physical processes. Further, some habitat creation options may be possible but only at extreme high cost. Consideration may be given if these habitat types are critical for endangered or threatened species and the habitat credit applied to the Habitat Bank recognizes the increased cost of development.</p> <p>Through regular liaison meetings between DFO and VFPA representatives, potential conservation projects are identified and discussed.</p> <p>DFO's confirmation of the appropriateness of a proposed conservation project for inclusion in the Habitat Bank is achieved through submitting the project for review and confirmation by DFO using the "Project Confirmation" template set out in ANNEX B.</p> <p>Conservation projects for inclusion in the Habitat Bank may be developed in collaboration with or by, and for the benefit of third parties. Once included in the Habitat Bank, such conservation projects will be treated in the same manner as other conservation projects that have been placed into the Habitat Bank.</p> <p>Habitat credit valuation will be established specifically for each conservation project. This valuation will include the unit of measure and the value of the credits to be deposited in the Habitat Bank. A description of the approach and the analysis performed will be included in the preparation of the "Project Confirmation" using the template set out in ANNEX B. Conservation projects will be recorded as a deposit into the Habitat Bank on the Habitat Credit Ledger upon completion of construction of the conservation project.</p> <p>The actual productive value of a particular conservation project will be determined immediately prior to its proposed application as credit to offset a development project.</p> <p>VFPA may opt to make its credits available to other third parties with offsetting requirements in the Service Area.</p> <p>VFPA shall, either through ownership, lease, licence or other agreement,</p>
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VFPA proposed changes dated April 7, 2017 September 26/18, 2017

	ensure that a conservation project site is protected at least until the withdrawal of the habitat credits from the Bank that are associated with the conservation project site.
Bank Establishment Date	July 31, 2012 under the terms of the Working Agreement, which was executed on September 10, 2012.

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VFPA proposed changes dated April 7, 2017 September 26~~18~~, 2017

ANNEX B

FORM OF PROJECT CONFIRMATION

The following document template (titled Project Confirmation) will be used to identify and confirm that a proposed conservation project is appropriate and confirmed for development and deposit in the Habitat Bank.

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 PORT of vancouver Habitat Enhancement Program	 Fisheries and Oceans Canada Pêches et Océans Canada <u>Project Confirmation</u>
PROJECT NAME:	

Terminology used:

- **"Arrangement"** refers to the arrangement between Fisheries and Oceans Canada and Vancouver Fraser Port Authority for the management and administration of the Vancouver Fraser Port Authority Habitat Bank
- **"DFO"** refers to Fisheries and Oceans Canada
- **"FPIP"** refers to *Fisheries Productivity Investment Policy: A Proponent's Guide to Offsetting (2013)*
- **"VFPA"** refers to Vancouver Fraser Port Authority
- **"Project"** refers to the proposed _____
- **"QEP"** refers to a Qualified Environmental Professional

Preamble:

In accordance with the Arrangement, this Project Confirmation will be used to confirm that:

- VFPA consulted and negotiated with DFO on the suitability of the above-referenced Project for habitat banking purposes.
- DFO agrees, in principle, that the above-referenced Project would be acceptable as fish habitat as identified herein.
- DFO agrees that the identified type of fish habitat and the approximate quantity of fish habitat would be suitable for habitat banking.
- The Project meets the terms of the Arrangement with regard to need, fish habitat, productivity, site location, feasibility/cost, and ownership/tenure.
- DFO acknowledges that VFPA has developed the project concept and will move to final design as identified in the attached drawings.

This Project Confirmation is used to support the conditions and requirements of the Arrangement and does not alter or modify the Arrangement in any manner. This Project Confirmation will also be used to confirm that the Project, if constructed as proposed, meets the objectives of the FPIP. An assisted assessment has determined that a DFO regulatory review pursuant to the Fisheries Act is not required for the Project. This assessment was conducted by a QEP in accordance with guidance from DFO's Projects Near Water web site and DFO's "Science Advice for Managing Risk and Uncertainty in Operational Decisions of the Fisheries Protection Program" (2014). As would be expected for a viable habitat enhancement opportunity, this assessment concluded that the Project will not result in Serious Harm to fish that contribute to commercial, recreational or Aboriginal (CRA) fisheries.

As the Project proceeds, VFPA will maintain responsibility to ensure that the Project has undergone appropriate reviews and assessments, including those mandated by applicable environmental assessment legislation (e.g., Species at Risk Act, if applicable) and any other VFPA-mandated reviews and assessments.

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Project Overview:	
<ul style="list-style-type: none"> • Description of the proposed project, and how the proposed project will result in the creation of high-value habitat that will provide long-term benefits for salmonid stocks and other fish and wildlife that utilize the project area • Description of ecological functions that the proposed project will include • Brief description of the proposed construction • Brief description of the proposed timing for project completion, including post-construction monitoring 	
Water feature name:	
Location of Works	
Regional district/ land use authority:	
City/municipality:	
Lat./Long.	
Property ownership:	
Description of Pre-Construction Values	
<ul style="list-style-type: none"> • Description of pre-construction habitat values and conditions, including biophysical attributes • Description of pre-construction use of the area, including site history as appropriate 	
Description of Proposed Activities	
<ul style="list-style-type: none"> • Detailed description of construction activities and design approach • Includes attachment of design drawings, and proposed habitat area for construction • Description of construction methodology and detailed mitigation measures 	
Overall work schedule:	
Least risk work window:	
Potential Habitat Gains and Anticipated Affected Areas	

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- Description of habitat gains, and anticipated affected habitat, table format

Habitat Type	Potential Habitat Gain (m ²)	Anticipated Affected Habitat (m ²)	Comments
X Habitat Type			
Habitat Gains and Affected Habitat			

Fish Productivity Investment Policy Considerations

- Description and high-level summary of how the proposed project is expected to comply with FPIP objectives, based on project characteristics, ecology of relevant fisheries species, fisheries management objectives, and any local restoration priorities.
- This includes a review of readily available online information including DFO fisheries management plans and other documents as required
- Description and rationale for how the proposed project meets the following 4 Principles of the FPIP:
 - **Principle 1:** Offsetting measures must support fisheries management objectives or local restoration priorities.
 - o Rationale:
 - **Principle 2:** Benefits from offsetting measures must balance Project impacts.
 - o Rationale:
 - **Principle 3:** Offsetting measures must provide additional benefits to the fishery.
 - o Rationale:
 - **Principle 4:** Offsetting measures must generate self-sustaining benefits over the long-term.
 - o Rationale:

Post Construction Monitoring Plan

- An as-built survey will be provided to document and confirm the size of the created habitat, following construction.
- VFPA will ensure that post-construction monitoring is undertaken in accordance with standard DFO requirements to confirm that created fish habitats are functioning as intended.
- A Post-Construction Monitoring Plan for the Habitat Enhancement Program has been created to outline monitoring requirements for habitat enhancement sites.
- Monitoring will include assessments of site stability, proper physical function, planting success, and achievement of the desired biological objectives.
- VFPA to provide an estimate of predicted time for the vegetation at the site to become well established

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Attachments	
• <i>Design Drawings (attachment)</i>	
Signed on behalf of Vancouver Fraser Port Authority: _____ Habitat Enhancement Program Vancouver Fraser Port Authority	Date: _____

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VFPA proposed changes dated April 7, 2017 September 26/18, 2017

ANNEX C

HABITAT CREDIT LEDGER

The following template shall be used to record and track the credits associated with each conservation project that has been deposited in the Habitat Bank. The completed Habitat Credit Ledger will be submitted to DFO at the following frequency:

- with each Annual Report; and
- following a transaction in the Habitat Bank (withdrawal or deposit of credits).

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VFPA proposed changes dated ~~April 7, 2017~~ September 26~~18~~, 2017

ANNEX D

FORM OF PROGRESS REPORTS

The following reports will be used to document and communicate the status of the Habitat Bank on an annual basis:

- Annual Report for VFPA's Habitat Bank; and
- Annual Habitat Monitoring Report for VFPA's Habitat Bank.

Each report will be submitted to DFO on annual basis and shall include the detail as provided in the following Outline of Content.

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VFPA proposed changes dated April 7, 2017 September 26/18, 2017

<u>ANNUAL REPORT FOR VFPA'S HABITAT BANK</u>	
– Outline of Content	
<u>SECTION</u>	<u>CONTENT</u>
1. Table of Contents	
2. Terminology Used	<ul style="list-style-type: none"> • Descriptions of terminology used in the report
3. Executive Summary	<ul style="list-style-type: none"> • Identification of purpose of Annual Report • Statement of commitment between Participants for a working relationship built on trust, accountability and information sharing • Overview of annual transactions and current credits
4. Introduction	<ul style="list-style-type: none"> • Background on the Habitat Bank • Acknowledgement of reporting requirements under the terms of the Arrangement
5. Administration of the Habitat Bank	<ul style="list-style-type: none"> • Tracking processes and responsibilities • Activities started/completed in Reporting Period • Annual Review • VFPA and DFO Liaison Activities • Achievements in Reporting Period
6. Credits in the Habitat Bank	<ul style="list-style-type: none"> • Summary of the credits in the Habitat Bank and the transaction that were performed in the reporting year
7. General Ledger	<ul style="list-style-type: none"> • Overview of the General Ledger
8. Habitat Balance Sheet	<ul style="list-style-type: none"> • Overview of the Habitat Balance Sheet
9. Anticipated Program for 20XX [Next Year]	<ul style="list-style-type: none"> • Projects Currently under Construction • Priority Projects for 20XX
10. Management Issues and Opportunities	<ul style="list-style-type: none"> • Challenges and issues encountered • Obstacles • Potential remedial measures for implementation next year

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<u>ANNUAL REPORT FOR VFPA'S HABITAT BANK</u>	
– Outline of Content	
<u>SECTION</u>	<u>CONTENT</u>
<u>Appendices</u>	
Appendix A	Summary of VFPA and DFO Meetings in the Reporting Year
Appendix B	As-Built Reports
Appendix C	Credit Transaction Reports
Appendix D	Map of Sites in the Habitat Bank
Appendix E	General Ledger
Appendix F	Habitat Balance Sheet
Appendix G	Map of Sites Proposed for Next Year

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<u>ANNUAL HABITAT MONITORING REPORT FOR VFPA'S HABITAT BANK</u>	
– Outline of Content	
<u>SECTION</u>	<u>CONTENT</u>
1. Terminology Used	<ul style="list-style-type: none"> • Descriptions of terminology used in the report
2. Introduction	<ul style="list-style-type: none"> • Background of the Habitat Bank • Acknowledgement of reporting requirements under the terms of the Arrangement
3. Types of Monitoring	<ul style="list-style-type: none"> • Description of the various types of monitoring that is used for the administration of the Habitat Bank
4. 20XX Monitoring Results	<ul style="list-style-type: none"> • Overview of monitoring results for each conservation project (Detailed reports are included in Appendix A)
5. Next Year's Habitat Monitoring Report	<ul style="list-style-type: none"> • Overview of next year's anticipated habitat monitoring
<u>Appendices</u>	
Appendix A	Conservation Project Monitoring Reports
Appendix B	Monitoring Status and Proposed Monitoring Schedule

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ANNEX E

EXISTING PROJECTS

The conservation projects that are identified herein represent the status of the Habitat Bank and projects planned for the Habitat Bank as of the Effective Date of this Arrangement.

Table 1 – Conservation projects currently deposited in the Habitat Bank

Table 2 – Conservation projects that have been proposed by VFPA and accepted by DFO as appropriate for development and deposit into the Habitat Bank

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Table 1.0 - Projects Deposited to VFPA Habitat Bank

No.	SITE	LOCATION	BANKED AREA (m ²)	STATUS
1.	Salt Marsh Restoration – TFN (3.1 & 3.2)	Delta (Tsawwassen)	6,635 m ² (salt marsh)	<ul style="list-style-type: none"> • Work is complete • Monitoring is in progress
2.	Salt Marsh Restoration - Boundary Bay (3.3, 3.4 & 3.5)	Delta (Boundary Bay)	56,357 m ² (salt marsh)	<ul style="list-style-type: none"> • Work is complete • Monitoring is in progress
3.	Glenrose Tidal Marsh	Delta	10,778 m ² (tidal freshwater marsh)	<ul style="list-style-type: none"> • Work is complete • Monitoring is in progress
4.	Riverfront Park Tidal Marsh	Vancouver	1,481 m ² (brackish marsh)	<ul style="list-style-type: none"> • Work is complete • Monitoring is in progress
5.	Gladstone Park Tidal Marsh	Vancouver	3,181 m ² (brackish marsh)	<ul style="list-style-type: none"> • Work is complete • Monitoring is in progress
6.	Timberland Basin Habitat	Surrey	1,146 m ² / 2,777 m ² (tidal freshwater marsh / tidal freshwater mudflat)	<ul style="list-style-type: none"> • Work is complete • Monitoring is in progress

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Table 2.0 - Projects Proposed by VFPA and accepted by DFO as appropriate for the Habitat Bank

No.	SITE	LOCATION	APPROX. GROSS AREA (ha.)	STATUS
1.	New Brighton Park Shoreline Habitat Restoration Project	Vancouver	~1.5 ha	• Under construction
2.	Polygon Cates Landing Habitat Restoration	North Vancouver	~1.0 ha	• Under construction
3.	Tsawwassen Eelgrass Project	Delta	~4.3 ha	• Permitting and approvals in progress
4.	South Arm Jetty Tidal Marsh Project	Richmond	~44.0 ha	• Permitting and approvals in progress
5.	Westham Island / Canoe Pass Tidal Marsh Project	Ladner	~4.0 ha	• Permitting and approvals in progress
6.	McDonald Tidal Marsh Project	Richmond	~2.8 ha	• Permitting and approvals in progress
7.	Point Grey Tidal Marsh Project	Vancouver	~41.0 ha	• To be advanced in future years
8.	Steveston Island Tidal Marsh Project	Richmond (Steveston)	~6.5 ha	• To be advanced in future years

Thorpe, Suzanne

From: Nutton, Byron
Sent: Wednesday, February 14, 2018 10:57 AM
To: Thorpe, Suzanne
Subject: FW: VFPA Habitat Bank info
Attachments: 2017-09-26 VFPA proposed changes to DFO-VFPA Habitat Banking Arrangement.....docx; 2017-09-25-03-600-VFPA HEP Aboriginal Engagement Summary for DFO-DRAFT-R....pdf; Interim_Guide_to_Proponent-led_Habitat_Banking.pdf; 2012-07-31 DFO-PMV Habitat Enhancement Program Signed Working Agreement.pdf; 2012-07-31 DFO-PMV Habitat Enhancement Program Signed Working Agreement.pdf; E7 Habitat banking.docx

Please note that the last attachment re: summary of FA revisions is NOT for circulation.

From: Nutton, Byron
Sent: 2018-February-07 3:04 PM
To: Melnick, Loriena
Subject: RE: VFPA Habitat Bank info

Attached

- Draft banking Arrangement – you haven't seen yet
- Draft Engagement strategy, Interim Banking Guidance, Existing Agreement – all the same as previously provided
- Summary of FA revisions related to habitat banking – you have probably seen, but not from me

Pasted below, for easy reference if needed, the sections of the FA revisions specific to habitat banking

Definitions

42.01 The following definitions apply in this section and sections 42.02 to 42.04.

conservation project means a work, undertaking or activity that is carried on by a proponent for the purpose of creating, restoring or enhancing fish habitat within a service area in order to acquire habitat credits. (*projet de conservation*)

fish habitat bank means an area of a fish habitat that has been created, restored or enhanced by the carrying on of one or more conservation projects within a service area and in respect of which area the Minister has certified any habitat credit under paragraph 42.02(1)(b). (*réserve d'habitats*)

habitat credit means a unit of measure that is agreed to between any proponent and the Minister under section 42.02 that quantifies the benefits of a conservation project. (*crédit d'habitat*)

proponent means a person who proposes the carrying on of a conservation project and any other work, undertaking or activity within a proposed service area. (*promoteur*)

service area means the geographical area that encompasses a fish habitat bank and one or more conservation projects and within which area a proponent carries on a work, undertaking or activity. (*zone de service*)

Arrangements respecting fish habitat banks

42.02 (1) For the purposes of sections 42.01 to 42.04, the Minister may
(a) establish a system for the creation, allocation and management of a proponent's habitat credits in relation to a conservation project; and
(b) issue a certificate to the proponent respecting the validity of any habitat credit acquired from the carrying on of a conservation project.

Arrangements

(2) In exercising the powers referred to in subsection (1), the Minister may enter into arrangements with any proponent.

Contents

(3) An arrangement referred to in subsection (2) shall include, among other things,
(a) any document and other information that describes the proposed fish habitat bank, conservation project and service area;
(b) a written confirmation that the Department of Fisheries and Oceans and anyone authorized to act on the Department's behalf is authorized to access the site of the conservation project for the term of the arrangement;
(c) a description of the administration, management and general operation of the arrangement by the parties, including
(i) a procedure for proposing a conservation project and an approval process,
(ii) a habitat credit certification process,
(iii) a process for habitat credit evaluation and any re-evaluation that may be required by the Minister,
(iv) habitat credit accounting procedures respecting the habitat credit ledger,
(v) progress reports on the conservation project, and
(vi) any other relevant matters respecting the administration of the arrangement;
(d) reports on the performance of the arrangement;
(e) the form and manner in which the arrangement may be amended;
(f) the date on which the arrangement comes into force; and
(g) the signatures of the parties.

Use of habitat credit within service area

42.03 A proponent may only use their certified habitat credits in respect of a fish habitat bank within a service area to offset the adverse effects on fish or fish habitat from the carrying on of a work, undertaking or activity authorized or permitted to be carried on in that service area.

Regulations

42.04 The Governor in Council may make regulations
(a) respecting the establishment of a system for the creation, allocation and management of habitat credits referred to in paragraph 42.02(1)(a);
(b) respecting the issuance of a certificate of validity of any habitat credit referred to in paragraph 42.02(1)(b); and
(c) respecting an arrangement with any proponent.

From: Melnick, Lorienta
Sent: 2017–October-16 9:02 AM
To: Nutton, Byron
Subject: RE: VFPA Habitat Bank info

Hi Byron,

I have reviewed all the documents you had shared with me and I do have some concerns about the Port's proposed Aboriginal consultation and Engagement Process. While the Port's broad approach looks ideal, they have not provided any details to support the general consultative work they hope to accomplish.

There is reference on page 3 that there's an accompanying document titled 'Habitat Bank Arrangement' which is supposed to contain supplementary information - do you think that could be the signed DFO-VFPA Working Agreement dated July 31, 2012 that you shared with me? If it is, I have also reviewed this and the information needed is also not there, which has me hopeful that there is a document missing somewhere?

We should discuss when you return to the office Wednesday. I am available that morning, just come find me.

Lorien

From: Nutton, Byron
Sent: 2017-October-02 2:35 PM
To: Melnick, Lorien
Subject: VFPA Habitat Bank info

Byron Nutton, RPBio

A/Team Lead | Chef d'équipe Intérimaire
Partnerships, Standards and Guidelines | Partenariats, Normes et lignes directrices
Fisheries Protection Program | Programme de protection des pêches
Fisheries and Oceans Canada | Pêches et Océans Canada
Pacific Region | Région du Pacifique

250-618-4268

VFPA proposed changes dated April 7, 2017 September 1, 2017

Habitat Bank Arrangement:

PORT OF VANCOUVER HABITAT BANK

Between

VANCOUVER FRASER PORT AUTHORITY

AND

HER MAJESTY THE QUEEN IN RIGHT OF CANADA, as represented by the Minister of
Fisheries and Oceans on behalf of Fisheries and Oceans Canada (“DFO”)

●, 2017

PATH Number: [INSERT PATH NUMBER]

VFPA proposed changes dated April 7, 2017 September 1, 2017

1. INTRODUCTION

This document sets out the principles of the mutual understanding between **Vancouver Fraser Port Authority ("VFPA")** and Fisheries and Oceans Canada ("DFO") (hereafter referred to as "the Participants") for the **Port of Vancouver Habitat Bank ("Habitat Bank")**.

WHEREAS:

- a. Fisheries and Oceans Canada (DFO) is responsible for the administration of the *Fisheries Act*, more specifically the fisheries protection provisions including Sections 6, 20, 21, 35, 37, and 38 related to the conservation and protection of Canada's marine and freshwater fisheries resources and their habitats from the impact of human activities. The purpose of the fisheries protection provisions, as set out in Section 6.1 of the *Fisheries Act*, is to provide for the sustainability and ongoing productivity of commercial, recreational and Aboriginal fisheries;
- b. DFO is responsible for the administration of the *Species at Risk Act* ("SARA") with respect to aquatic species other than those individuals in or on federal lands administered by the Parks Canada Agency and, in that capacity, the Minister of Fisheries and Oceans has powers and duties with respect to protecting aquatic species listed under that Act and providing for their recovery;
- c. The Fisheries Protection Policy Statement's goal is to promote compliance with the *Fisheries Act* in order to contribute to the purpose set out in section 6.1 of the *Fisheries Act*;
- d. This Arrangement does not commit DFO to the authorization of any future work, undertaking or activity requiring an authorization under paragraph 35(2)(b) of the *Fisheries Act*, or permit any future project requiring a permit under sections 73 and 74 of the *Species at Risk Act*. All future projects will be reviewed on their own merit and a decision on whether to authorize or permit will be made independent of the existence of a habitat bank arrangement. This Arrangement, and any related communications between DFO and VFPA do not constitute a representation or commitment of any kind to VFPA regarding authorization of any future projects by DFO. This Arrangement, and any related communications, moreover does not constitute a commitment that any habitat credits that may be issued to a proponent will be acceptable in the context of future applications for *Fisheries Act* authorizations or SARA permits.
- e. VFPA is a port authority established by the Government of Canada pursuant to the *Canada Marine Act* and is accountable to the federal Minister of Transport. VFPA has a mandate to facilitate Canada's trade objectives, ensuring goods are moved safely, while protecting the environment and considering local communities. In fulfilling the mandate, VFPA carries out a variety of duties, including infrastructure development to support growth and efficient operations. The Habitat Bank can support such infrastructure development by a proponent when habitat credits are acceptable in the context of future *Fisheries Act* authorizations or SARA permits.

VFPA proposed changes dated ~~April 7, 2017~~ September 16, 2017

- f. The Participants entered into a Working Agreement dated July 31, 2012 (“Working Agreement”) relating to the procedures for development and operation of a VFPA-led habitat bank for a 5 year trial period which may be mutually extended by the Participants;
- g. VFPA has undertaken several habitat creation and enhancement projects in consultation with DFO pursuant to the Working Agreement, which are included in Annex E (“Existing Projects”); and
- h. This Arrangement will replace the Working Agreement and the Existing Projects will be managed pursuant to this Arrangement.

THEREFORE, the Participants agree to the following arrangement (“Arrangement”).

2. PURPOSE

To support VFPA in fulfilling its mandate (referred to in paragraph e above) by facilitating infrastructure development by a proponent when habitat credits from the Habitat Bank can be applied to meet future offsetting requirements for such development. References to “proponent” for the purposes of this Arrangement, including the Guide, shall mean VFPA and other third parties.

To replace the Working Agreement with this Arrangement and to establish revised principles for the continuation and management of the Habitat Bank by:

- establishing a working relationship between the Participants based on trust, accountability and information sharing;
- establishing a clear understandable arrangement for managing the Habitat Bank; and
- increasing certainty in the administration of the Habitat Bank.

3. OTHER GENERAL INFORMATION

The activities carried out under this Arrangement will be consistent with:

- *Fisheries Protection Policy Statement* (2013);
- *Fisheries Productivity Investment Policy: A Proponent's Guide to Offsetting* (2013); and
- *Interim Fisheries Protection Program's Guide to Proponent-led Habitat Banking* (October, 2016) (“Guide”).

4. SCOPE

The scope of this Arrangement is limited to the continuation and administration of the Habitat Bank described in Annex A, and including conservation projects proposed in accordance with Annex B and the Existing Projects (described in Annex E).

VFPA proposed changes dated April 7, 2017 September 10, 2017

5. ROLES AND RESPONSIBILITIES

The roles and responsibilities of the VFPA are:

- Jointly managing the performance of the Arrangement with DFO;
- Identifying, designing, constructing, monitoring, maintaining, and protecting conservation project sites;
- Meeting all other applicable federal, territorial, provincial and municipal requirements that apply to conservation projects;
- Reporting on performance of conservation projects;
- Accurately maintaining a copy of the habitat credit ledger; and
- Preparing and submitting Progress Reports for the Arrangement.

The roles and responsibilities of DFO are:

- Jointly managing the performance of the Arrangement with VFPA;
- Reviewing, providing advice and confirming conservation project proposals;
- Reviewing Progress Reports, validating habitat credit balances in the habitat credit ledger, and processing habitat credit ledger transactions;
- Verifying the reported results of conservation project performance in the Progress Reports;
- When appropriate, carrying out direct monitoring (i.e., a site visit to gather and analyse samples or information in order to directly verify compliance and effectiveness) and/or carrying out indirect monitoring (i.e., an assessment of information provided in Progress Reports to verify compliance and effectiveness) of conservation project sites; and
- Reviewing and processing Progress Reports of the Arrangement;

The Participants shall fulfill their responsibilities under this Arrangement in accordance with the provisions of federal, provincial and territorial laws and regulations that govern their activities. Should a Participant not be able to perform a function under this Arrangement, the affected Participant will immediately contact the other signatories of this Arrangement so that early resolution can be reached.

6. MANAGEMENT PROVISIONS

This Arrangement establishes the following management provisions for the administration of the Habitat Bank:

- The accountability lies with the office of signatories of the Arrangement, Director, Infrastructure Sustainability, Vancouver Fraser Port Authority and Regional Director, Ecosystems Management, of DFO Pacific Region.
- The day to day administration of the Arrangement will be carried out by: Program Manager, Habitat Enhancement Program, Vancouver Fraser Port Authority; and Team Lead, Partnerships, Standards and Guidelines of DFO Pacific Region.

VFPA proposed changes dated April 7, 2017 September 14, 2017

7. ADMINISTRATION OF THE HABITAT BANK ARRANGEMENT

- Specific details related to the principles of the administration and operation of the Habitat Bank are included in ANNEX A;
- Conservation projects that are proposed for development are to be submitted for review and confirmation by DFO using the "Project Confirmation" template set out in ANNEX B;
- Habitat credits held within the Habitat Bank shall be tracked using the "Habitat Credit Ledger" template and frequency set out in and described in ANNEX C;
- Progress Reports shall be prepared and submitted annually in accordance with the requirements of ANNEX D;
- Existing Projects that were either constructed or are proposed for construction under the terms of the Working Agreement and identified in ANNEX E.

8. SHARING OF INFORMATION

While this Arrangement is in effect and at all times thereafter, each of DFO and VFPA and any officers, employees or agents of each of them shall treat all information, data, documents, reports and materials acquired or to which access have been given in the course of, or incidental to, the performance of this Arrangement as confidential, subject to the federal *Access to Information Act* and the *Privacy Act*. With the exception of the Arrangement, the annexes to the Arrangements and annual Progress Reports, which VFPA may disclose from time to time, the Participants shall not disclose or permit to be disclosed such information, data, documents, reports and materials, unless:

- the Participants agree to the disclosure;
- the disclosure is part of the application and review process of VFPA's Project and Environmental Review for a proposed conservation project, which would include disclosure of project-specific information, engagement information for public/stakeholder and Aboriginal groups and technical content, and the posting of on-line information;
- the disclosure is part of an application and review process of other regulatory agencies (such as Environment Canada for Disposal at Sea permit) for a proposed conservation project, which would include disclosure only as required by the such agencies;
- the disclosure relates to the sharing of conservation project plans with Aboriginal groups as part of the project confirmation process (see Annex B);
- the disclosure is to a person other than a third party as part of the Habitat Bank Administration as described in Annex A;
- the disclosure is required by law;
- the information was obtained from the public; or
- the information is available to the public.

Commented [OC1]: This bullet was revised by VFPA as requested following a meeting with Byron N. on Sept 26/17

VFPA proposed changes dated ~~April 7, 2017~~ September 28, 2017

9. DIFFERENCES IN INTERPRETATION AND APPLICATION

The Participants will endeavor to resolve issues regarding the implementation of this Arrangement in a timely manner using mechanisms available to the Participants. Where an issue remains unresolved, the pre-eminent jurisdiction responsible for the matter under consideration will make the final determination and seek concurrence from Director, Infrastructure Sustainability, Vancouver Fraser Port Authority and Regional Director, Ecosystems Management, of DFO Pacific Region.

10. PROGRESS REPORTS

The VFPA will prepare a progress reports using the form described in Annex D ("Progress Report") on the achievements and challenges encountered during the reporting period of this Arrangement as it relates to the purposes identified in section 2 of this Arrangement.

The Progress Report should be submitted within 90 calendar days from the conclusion of each year. A year will be considered to run from January 1 to December 31.

The Progress Report will be submitted to the Office of signatories of the Arrangement, Director, Infrastructure Sustainability, Vancouver Fraser Port Authority and Regional Director, Ecosystems Management, of DFO Pacific Region for their concurrence.

All Progress Reports will conform to the requirements set out in ANNEX D.

11. REVIEW

At the end of each five year period during which this Arrangement is in effect, the Regional Director, Ecosystems Management, of DFO Pacific Region of DFO will establish a review team consisting of Program Manager, Habitat Enhancement Program, Vancouver Fraser Port Authority and Team Lead, Partnerships, Standards and Guidelines of DFO Pacific Region of DFO or appropriately qualified third party to review the effectiveness of activities under this Arrangement. This review team will report to the Regional Director, Ecosystems Management, of DFO Pacific Region within six months of being established.

12. AMENDMENT

The Arrangement may be amended at any time in writing and by mutual consent of the Participants. An amendment will be confirmed by an exchange of letters, signed by the Participants, setting out the amendment and its effective date.

13. FINANCIAL ARRANGEMENT

This Arrangement will not impose any additional financial responsibilities on the Participants, except that each Participant will be responsible for the staff and funding costs it incurs in its own interests, related to the support of the Arrangement.

VFPA proposed changes dated ~~April 7, 2017~~ September 11, 2017

14. DURATION, WITHDRAWAL AND TERMINATION

This Arrangement is in effect for a period of twenty years. VFPA can request a renewal of the Arrangement for an additional defined term (of no less than five years) by providing one year's written notice to the other Participant. If this Arrangement is not renewed at the expiration of the term or a renewal, and provided that VFPA is not in breach of this Arrangement, the Participants will continue to apply the terms of this Arrangement to all conservation projects that are either deposited in the Habitat Bank or have been confirmed by DFO in accordance with Annex B. [NTD: VFPA maintains its preference for a 20-year term for the Arrangement. This duration supports VFPA's significant investment in its habitat bank and provides longer-term assurances for the development of new habitat sites in the future. Should DFO policy change within this 20 year term, the Arrangement can accommodate these changes through its 5 year review process identified in Clause 11 – Review and through the provision for amending the Arrangement identified in Clause 12 – Amendment.]

15. LEGAL DISCLAIMER

This Arrangement is an expression of the mutual intentions of the Participants and is not legally binding or enforceable against them.

15.16. NOTICE

All notices to be given under this Arrangement shall be in writing and shall be sent by prepaid registered mail or facsimile transmission addressed to the Party entitled to receive the same, or delivered to such party as follows:

- if to VFPA:

Vancouver Fraser Port Authority
100 The Pointe
999 Canada Place
Vancouver, British Columbia
V6C 3T4

Attention: Director, Infrastructure Sustainability
Facsimile: 1.866.212.1688

with a copy to:

Attention: Director, Legal Services
Facsimile: 1.866.665.9062

- if to DFO:

Attention:

VFPA proposed changes dated ~~April 7, 2017~~ September 11, 2017

Facsimile:

~~16-17.~~ **GENERAL**

VFPA is entering into this Arrangement on its own behalf and not as agent of Her Majesty in Right of Canada.

EFFECTIVE DATE AND SIGNATURE

This Arrangement has been signed by the Regional Director of DFO Pacific Region of Fisheries and Oceans on behalf of Her Majesty the Queen in Right of Canada and by the VFPA on the dates noted below.

SIGNED IN THE PRESENCE OF:

FOR HER MAJESTY THE QUEEN IN RIGHT OF CANADA

**Regional Director,
Ecosystems Management,
of DFO Pacific Region
of Fisheries and Oceans Canada**

Witness

[INSERT NAME] _____
**Regional Director,
Ecosystems Management,
of DFO Pacific Region
of Fisheries and Oceans Canada**

Date

FOR VANCOUVER FRASER PORT AUTHORITY

**Robin Silvester
President and CEO**

Witness (as to both)

**J. Dean Readman
Corporate Secretary**

VFPA proposed changes dated ~~April 7, 2017~~ September 22, 2017

ANNEX A

HABITAT BANK DESCRIPTION AND THE PRINCIPLES FOR THE MANAGEMENT
OF THE PORT OF VANCOUVER HABITAT BANK

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VFPA proposed changes dated April 7, 2017 September 1, 2017

ANNEX A:

HABITAT BANK DESCRIPTION AND THE PRINCIPLES FOR THE MANAGEMENT OF

Information Required	Description
Habitat Bank Location ("Service Area")	<p>The Service Area of the Habitat Bank will include conservation projects situated geographically within the Fraser River Estuary and its tributaries, Burrard Inlet, the Strait of Georgia and its associated inlets and other areas as established from time to time as mutually agreed to by the Participants. <u>[NTD: The rationale for the proposed Service Area is as follows: VFPA manages over 16,000 hectares of waterway, more than 1,000 hectares of land and approximately 350 kilometers of shoreline. Such areas includes estuarine and marine shoreline that supports a myriad of commercial, recreational and Aboriginal fisheries and fish that support these fisheries. Some of these fisheries species exhibit anadromous or migratory life histories. For example, Pacific salmon spend the adult portions of their lives feeding in the Pacific Ocean, including the Strait of Georgia, spawn in freshwater rivers and tributaries of the Fraser River and Burrard Inlet, and rear in the Fraser River estuary and along shallow marine shorelines. Habitat creation and enhancement targeted at migratory species can be planned throughout the proposed geographic service area and to the benefit of CRA species that occupy and transit the areas VFPA manages.]</u></p>
Habitat Bank Administration	<p>The Habitat Bank is a long-term initiative that is used to proactively create and enhance habitat for fish and wildlife. Consistent with VFPA's mandate, this enables VFPA to balance future infrastructure development opportunities with a healthy environment.</p> <p>Conservation projects for the Habitat Bank will generally be selected based on the following considerations and criteria:</p> <ul style="list-style-type: none"> (a) <u>Need</u>: Locations characterized by low productive capacity for species and stocks of interest or species at risk will be considered as a priority for the Habitat Bank. The intent is to develop or improve habitat capacity in the Service Area where habitat is needed and in support of applicable DFO policies. (b) <u>Habitat Productivity</u>: Emphasis will be placed on creation of high value habitat types that support a large number of ecological services and species functions (e.g. eelgrass beds and low marshes). The value of productivity will be assessed in

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	<p>the context of “need” (see (a) above).</p> <p>(c) <u>Site location</u>: Sites for the Habitat Bank will be selected based on their proximity to potential development areas with significant or rare ecological habitats or where onsite habitat compensation opportunities may be limited.</p> <p>(d) <u>Feasibility and cost</u>: Coastal zone processes, river hydraulics biological productivity and ecological functioning are amongst the factors that will be used to determine the feasibility of habitat creation. In some areas it may not be possible to achieve stable self-functioning habitat due to ongoing influences of physical processes. Further, some habitat creation options may be possible but only at extreme high cost. Consideration may be given if these habitat types are critical for endangered or threatened species and the habitat credit applied to the Habitat Bank recognizes the increased cost of development.</p> <p>Through regular liaison meetings between DFO and VFPA representatives, potential conservation projects are identified and discussed.</p> <p>DFO’s confirmation of the appropriateness of a proposed conservation project for inclusion in the Habitat Bank is achieved through submitting the project for review and confirmation by DFO using the “Project Confirmation” template set out in ANNEX B.</p> <p>Conservation projects for inclusion in the Habitat Bank may be developed in collaboration with or by, and for the benefit of third parties. Once included in the Habitat Bank, such conservation projects will be treated in the same manner as other conservation projects that have been placed into the Habitat Bank.</p> <p>Habitat credit valuation will be established specifically for each conservation project. This valuation will include the unit of measure and the value of the credits to be deposited in the Habitat Bank. A description of the approach and the analysis performed will be included in the preparation of the “Project Confirmation” using the template set out in ANNEX B. Conservation projects will be recorded as a deposit into the Habitat Bank on the Habitat Credit Ledger upon completion of construction of the conservation project.</p> <p>The actual productive value of a particular conservation project will be determined immediately prior to its proposed application as credit to offset a development project.</p> <p>VFPA may opt to make its credits available to other third parties with offsetting requirements in the Service Area.</p> <p>VFPA shall, either through ownership, lease, licence or other agreement,</p>
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	ensure that a conservation project site is protected at least until the withdrawal of the habitat credits from the Bank that are associated with the conservation project site.
Bank Establishment Date	July 31, 2012 under the terms of the Working Agreement, which was executed on September 10, 2012.

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VFPA proposed changes dated ~~April 7, 2017~~ September 1, 2017


ANNEX B

FORM OF PROJECT CONFIRMATION

The following document template (titled Project Confirmation) will be used to identify and confirm that a proposed conservation project is appropriate and confirmed for development and deposit in the Habitat Bank.

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 PORT of vancouver Habitat Enhancement Program	Fisheries and Oceans Canada Pêches et Océans Canada <u>Project Confirmation</u>
PROJECT NAME:	

Terminology used:

- "Arrangement" refers to the arrangement between Fisheries and Oceans Canada and Vancouver Fraser Port Authority for the management and administration of the Vancouver Fraser Port Authority Habitat Bank
- "DFO" refers to Fisheries and Oceans Canada
- "FPIP" refers to *Fisheries Productivity Investment Policy: A Proponent's Guide to Offsetting (2013)*
- "VFPA" refers to Vancouver Fraser Port Authority
- "Project" refers to the proposed _____
- "QEP" refers to a Qualified Environmental Professional

Preamble:

In accordance with the Arrangement, this Project Confirmation will be used to confirm that:

- VFPA consulted and negotiated with DFO on the suitability of the above-referenced Project for habitat banking purposes.
- DFO agrees, in principle, that the above-referenced Project would be acceptable as fish habitat as identified herein.
- DFO agrees that the identified type of fish habitat and the approximate quantity of fish habitat would be suitable for habitat banking.
- The Project meets the terms of the Arrangement with regard to need, fish habitat, productivity, site location, feasibility/cost, and ownership/tenure.
- DFO acknowledges that VFPA has developed the project concept and will move to final design as identified in the attached drawings.

This Project Confirmation is used to support the conditions and requirements of the Arrangement and does not alter or modify the Arrangement in any manner. This Project Confirmation will also be used to confirm that the Project, if constructed as proposed, meets the objectives of the FPIP. An assisted assessment has determined that a DFO regulatory review pursuant to the Fisheries Act is not required for the Project. This assessment was conducted by a QEP in accordance with guidance from DFO's Projects Near Water web site and DFO's "Science Advice for Managing Risk and Uncertainty in Operational Decisions of the Fisheries Protection Program" (2014). As would be expected for a viable habitat enhancement opportunity, this assessment concluded that the Project will not result in Serious Harm to fish that contribute to commercial, recreational or Aboriginal (CRA) fisheries.

As the Project proceeds, VFPA will maintain responsibility to ensure that the Project has undergone appropriate reviews and assessments, including those mandated by applicable environmental assessment legislation (e.g., Species at Risk Act, if applicable) and any other VFPA-mandated reviews and assessments.

VFPA proposed changes dated April 7, 2017 September 1, 2017

Project Overview:	
<ul style="list-style-type: none"> • Description of the proposed project, and how the proposed project will result in the creation of high-value habitat that will provide long-term benefits for salmonid stocks and other fish and wildlife that utilize the project area • Description of ecological functions that the proposed project will include • Brief description of the proposed construction • Brief description of the proposed timing for project completion, including post-construction monitoring 	
Water feature name:	
Location of Works	
Regional district/ land use authority:	
City/municipality:	
Lat./Long.	
Property ownership:	
Description of Pre-Construction Values	
<ul style="list-style-type: none"> • Description of pre-construction habitat values and conditions, including biophysical attributes • Description of pre-construction use of the area, including site history as appropriate 	
Description of Proposed Activities	
<ul style="list-style-type: none"> • Detailed description of construction activities and design approach • Includes attachment of design drawings, and proposed habitat area for construction • Description of construction methodology and detailed mitigation measures 	
Overall work schedule:	
Least risk work window:	
Potential Habitat Gains and Anticipated Affected Areas	

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- *Description of habitat gains, and anticipated affected habitat, table format*

Habitat Type	Potential Habitat Gain (m ²)	Anticipated Affected Habitat (m ²)	Comments
X Habitat Type			
Habitat Gains and Affected Habitat			

Fish Productivity Investment Policy Considerations

- *Description and high-level summary of how the proposed project is expected to comply with FPIP objectives, based on project characteristics, ecology of relevant fisheries species, fisheries management objectives, and any local restoration priorities.*
- *This includes a review of readily available online information including DFO fisheries management plans and other documents as required*
- *Description and rationale for how the proposed project meets the following 4 Principles of the FPIP:*
 - **Principle 1:** Offsetting measures must support fisheries management objectives or local restoration priorities.
 - *Rationale:*
 - **Principle 2:** Benefits from offsetting measures must balance Project impacts.
 - *Rationale:*
 - **Principle 3:** Offsetting measures must provide additional benefits to the fishery.
 - *Rationale:*
 - **Principle 4:** Offsetting measures must generate self-sustaining benefits over the long-term.
 - *Rationale:*

Post Construction Monitoring Plan

- *An as-built survey will be provided to document and confirm the size of the created habitat, following construction.*
- *VFPA will ensure that post-construction monitoring is undertaken in accordance with standard DFO requirements to confirm that created fish habitats are functioning as intended.*
- *A Post-Construction Monitoring Plan for the Habitat Enhancement Program has been created to outline monitoring requirements for habitat enhancement sites.*
- *Monitoring will include assessments of site stability, proper physical function, planting success, and achievement of the desired biological objectives.*
- *VFPA to provide an estimate of predicted time for the vegetation at the site to become well established*

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Attachments	
• <i>Design Drawings (attachment)</i>	
Signed on behalf of Vancouver Fraser Port Authority:	
<hr/>	Date: <hr/>
Habitat Enhancement Program Vancouver Fraser Port Authority	

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VFPA proposed changes dated April 7, 2017 September 22, 2017

ANNEX C

HABITAT CREDIT LEDGER

The following template shall be used to record and track the credits associated with each conservation project that has been deposited in the Habitat Bank. The completed Habitat Credit Ledger will be submitted to DFO at the following frequency:

- with each Annual Report; and
- following a transaction in the Habitat Bank (withdrawal or deposit of credits).

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VIPA proposed changes dated April 7, 2017 September 1, 2017

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VFPA proposed changes dated April 7, 2017 September 11, 2017

ANNEX D

FORM OF PROGRESS REPORTS

The following reports will be used to document and communicate the status of the Habitat Bank on an annual basis:

- Annual Report for VFPA's Habitat Bank; and
- Annual Habitat Monitoring Report for VFPA's Habitat Bank.

Each report will be submitted to DFO on annual basis and shall include the detail as provided in the following Outline of Content.

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<u>ANNUAL REPORT FOR VFPA'S HABITAT BANK</u>	
– Outline of Content	
<u>SECTION</u>	<u>CONTENT</u>
1. Table of Contents	
2. Terminology Used	<ul style="list-style-type: none"> • Descriptions of terminology used in the report
3. Executive Summary	<ul style="list-style-type: none"> • Identification of purpose of Annual Report • Statement of commitment between Participants for a working relationship built on trust, accountability and information sharing • Overview of annual transactions and current credits
4. Introduction	<ul style="list-style-type: none"> • Background on the Habitat Bank • Acknowledgement of reporting requirements under the terms of the Arrangement
5. Administration of the Habitat Bank	<ul style="list-style-type: none"> • Tracking processes and responsibilities • Activities started/completed in Reporting Period • Annual Review • VFPA and DFO Liaison Activities • Achievements in Reporting Period
6. Credits in the Habitat Bank	<ul style="list-style-type: none"> • Summary of the credits in the Habitat Bank and the transaction that were performed in the reporting year
7. General Ledger	<ul style="list-style-type: none"> • Overview of the General Ledger
8. Habitat Balance Sheet	<ul style="list-style-type: none"> • Overview of the Habitat Balance Sheet
9. Anticipated Program for 20XX [Next Year]	<ul style="list-style-type: none"> • Projects Currently under Construction • Priority Projects for 20XX
10. Management Issues and Opportunities	<ul style="list-style-type: none"> • Challenges and issues encountered • Obstacles • Potential remedial measures for implementation next year

VFPA proposed changes dated April 7, 2017 September 1, 2017

ANNUAL REPORT FOR VFPA'S HABITAT BANK

– Outline of Content

<u>SECTION</u>	<u>CONTENT</u>
<u>Appendices</u>	
Appendix A	Summary of VFPA and DFO Meetings in the Reporting Year
Appendix B	As-Built Reports
Appendix C	Credit Transaction Reports
Appendix D	Map of Sites in the Habitat Bank
Appendix E	General Ledger
Appendix F	Habitat Balance Sheet
Appendix G	Map of Sites Proposed for Next Year

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VFPA proposed changes dated April 7, 2017 September 1, 2017

ANNUAL HABITAT MONITORING REPORT FOR VFPA'S HABITAT BANK

– Outline of Content

<u>SECTION</u>	<u>CONTENT</u>
1. Terminology Used	<ul style="list-style-type: none">• Descriptions of terminology used in the report
2. Introduction	<ul style="list-style-type: none">• Background of the Habitat Bank• Acknowledgement of reporting requirements under the terms of the Arrangement
3. Types of Monitoring	<ul style="list-style-type: none">• Description of the various types of monitoring that is used for the administration of the Habitat Bank
4. 20XX Monitoring Results	<ul style="list-style-type: none">• Overview of monitoring results for each conservation project (Detailed reports are included in Appendix A)
5. Next Year's Habitat Monitoring Report	<ul style="list-style-type: none">• Overview of next year's anticipated habitat monitoring
<u>Appendices</u>	
Appendix A	Conservation Project Monitoring Reports
Appendix B	Monitoring Status and Proposed Monitoring Schedule

VFPA proposed changes dated April 7, 2017, September 1, 2017

ANNEX E

EXISTING PROJECTS

The conservation projects that are identified herein represent the status of the Habitat Bank and projects planned for the Habitat Bank as of the Effective Date of this Arrangement.

Table 1 – Conservation projects currently deposited in the Habitat Bank

Table 2 – Conservation projects that have been proposed by VFPA and accepted by DFO as appropriate for development and deposit into the Habitat Bank

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Table 1.0 - Projects Deposited to VFPA Habitat Bank

No.	SITE	LOCATION	BANKED AREA (m ²)	STATUS
1.	Salt Marsh Restoration – TFN (3.1 & 3.2)	Delta (Tsawwassen)	6,635 m ² (salt marsh)	<ul style="list-style-type: none"> • Work is complete • Monitoring is in progress
2.	Salt Marsh Restoration - Boundary Bay (3.3, 3.4 & 3.5)	Delta (Boundary Bay)	56,357 m ² (salt marsh)	<ul style="list-style-type: none"> • Work is complete • Monitoring is in progress
3.	Glenrose Tidal Marsh	Delta	10,778 m ² (tidal freshwater marsh)	<ul style="list-style-type: none"> • Work is complete • Monitoring is in progress
4.	Riverfront Park Tidal Marsh	Vancouver	1,481 m ² (brackish marsh)	<ul style="list-style-type: none"> • Work is complete • Monitoring is in progress
5.	Gladstone Park Tidal Marsh	Vancouver	3,181 m ² (brackish marsh)	<ul style="list-style-type: none"> • Work is complete • Monitoring is in progress
6.	Timberland Basin Habitat	Surrey	1,146 m ² / 2,777 m ² (tidal freshwater marsh / tidal freshwater mudflat)	<ul style="list-style-type: none"> • Work is complete • Monitoring is in progress

VFPA proposed changes dated April 7, 2017-September 1, 2017

Table 2.0 - Projects Proposed by VFPA and accepted by DFO as appropriate for the Habitat Bank

No.	SITE	LOCATION	APPROX. GROSS AREA (ha.)	STATUS
1.	New Brighton Park Shoreline Habitat Restoration Project	Vancouver	~1.5 ha	• Under construction
2.	Polygon Cates Landing Habitat Restoration	North Vancouver	~1.0 ha	• Under construction
3.	Tsawwassen Eelgrass Project	Delta	~4.3 ha	• Permitting and approvals in progress
4.	South Arm Jetty Tidal Marsh Project	Richmond	~44.0 ha	• Permitting and approvals in progress
5.	Westham Island / Canoe Pass Tidal Marsh Project	Ladner	~4.0 ha	• Permitting and approvals in progress
6.	McDonald Tidal Marsh Project	Richmond	~2.8 ha	• Permitting and approvals in progress
7.	Point Grey Tidal Marsh Project	Vancouver	~41.0 ha	• To be advanced in future years
8.	Steveston Island Tidal Marsh Project	Richmond (Steveston)	~6.5 ha	• To be advanced in future years



Habitat Enhancement Program
Aboriginal Consultation and Engagement Process
(2017-2018)

DRAFT – September 25 2017 (Rev0)

Overview and Purpose

Aboriginal consultation and engagement is a key requirement for the successful delivery of habitat projects undertaken by VFPA's Habitat Enhancement Program (HEP). As such, a robust process was established that guides Aboriginal consultation and is closely aligned with broader VFPA obligations and objectives related to Aboriginal consultation and engagement. This document not only describes the process implemented by the Habitat Enhancement Program for consulting and engaging with Aboriginal groups, it also identifies key points during the process for Aboriginal input and involvement on habitat projects.

Program Overview

The Vancouver Fraser Port Authority Habitat Enhancement Program proactively creates and enhances habitat for fish and wildlife. VFPA's Working Agreement with Fisheries and Oceans Canada (DFO) allows VFPA to apply fish habitat credits from proven, functioning habitat to offset future projects with approval from DFO. In short, VFPA aims to balance future infrastructure development opportunities with a healthy environment.

It is important to note that development projects are designed first to avoid project effects on fish and fish habitat; using credits from the Habitat Enhancement Program is not the first choice to offset these potential effects. If effects cannot be completely avoided, then project teams incorporate mitigation into project design to reduce effects. Offsetting is only considered if these other options are unavailable or insufficient.

VFPA enhances or creates habitat in advance of projects that may need to offset effects to fish and fish habitat. To ensure the enhanced habitat continues to function well, VFPA undertakes regular monitoring guided by biologists and coastal engineers.

Aboriginal Consultation and Engagement

VFPA manages lands and waters that intersect the asserted and established traditional territories and treaty lands of several Coast Salish First Nations. VFPA recognizes the history and contemporary interests of Aboriginal Peoples and works to establish and maintain productive relationships through Aboriginal consultation, regular communication, and a desire to engage in mutually beneficial opportunities to enhance the Asia-Pacific Gateway.

An integral part of project development and implementation is the relationship between VFPA and Aboriginal communities. Over the past several years, there has been an evolving awareness and recognition of the critical importance of appropriately and effectively consulting and engaging with the various Aboriginal communities within the port's area of jurisdiction.

VFPA recognizes and respects that local Aboriginal communities and their leadership want meaningful and ongoing input into the planning, operation, and expansion of port facilities and related transportation infrastructure. Accordingly, the port is committed to continued and active engagement with Aboriginal groups who have interests that may potentially be impacted by HEP projects.

VFPA's consultation and engagement for HEP projects aims to identify and address project-related impacts, to design and implement appropriate mitigation measures, and to explore opportunities for Aboriginal involvement such as participation in field studies and/or employment, training and contracting.

VFPA will consult with Aboriginal groups on VFPA's updated DFO-VFPA "*Habitat Bank Arrangement*" prior to execution of the Arrangement. Consultation will be undertaken with all groups within VFPA's Service Area as described in the Arrangement. VFPA will also engage these groups to obtain input in relation to project identification and to provide regular program updates.

As appropriate, VFPA will also consult with Aboriginal groups on individual habitat projects. The project-specific consultation process is outlined in the following pages.

Where relevant, the Habitat Enhancement Program also undertakes consultation in accordance with the requirements of regulatory processes such as the VFPA Project Environmental Review Process. Regulatory agencies may also undertake consultation as part of their process in reviewing habitat enhancement projects.

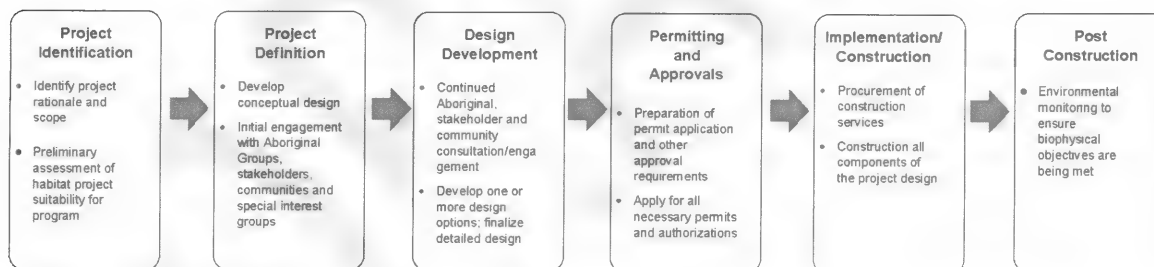
Project Development Process

The development of habitat enhancement projects is achieved through six basic project management phases that are used to guide and control the project from start to finish.

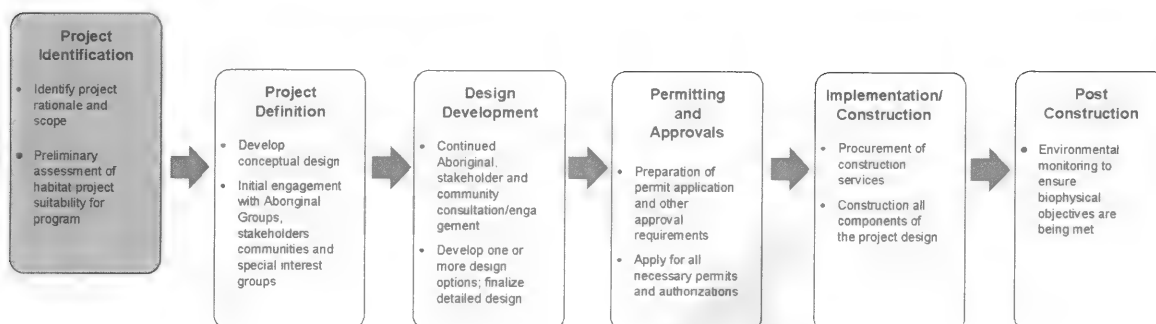
Commencing with the identification of a potential project, the process provides for the structured development and advancement of all required components required for project delivery.

- **Phase 1 (Project Identification)** – The “idea” or the vision of what could be achieved.
- **Phase 2 (Project Definition)** – What are the project objectives? Constraints?
- **Phase 3 (Design Development)** – How will the project objectives be achieved?
- **Phase 4 (Permitting and Approvals)** – Obtaining formal permission to perform the work.
- **Phase 5 (Implementation/Construction)** – Construction of the habitat project.
- **Phase 6 (Post Construction)** – Ensuring long-term success of the habitat project.

The illustration below depicts these six key project management phases and provides the key tasks associated with each.



Phase 1 - Project Identification

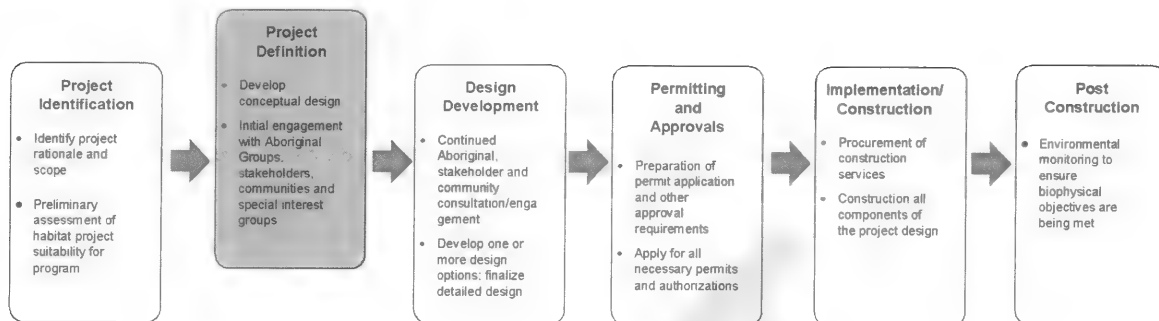


The identification of potential habitat projects is a critical component of the project delivery process. Consideration must be made for habitat need, habitat productivity, feasibility, cost, land tenure, DFO confirmation and Aboriginal considerations.

Aboriginal Consultation and Engagement

- *HEP seeks input from Aboriginal groups on identification of potential habitat enhancement sites*
- *HEP seeks input from Aboriginal groups on habitat enhancement projects identified by others*
- *Aboriginal groups share available traditional knowledge, information and studies*

Phase 2 - Project Definition

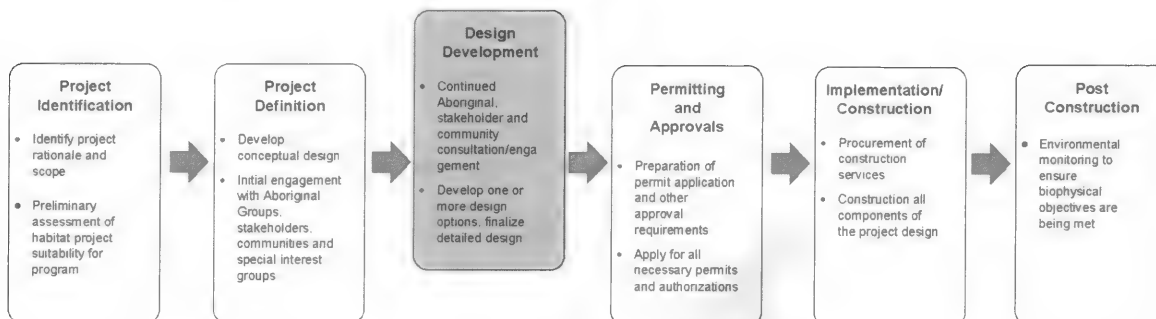


The development of conceptual designs is key in defining what a habitat project could include. Using these concept designs, initial engagement and consultation on specific project features can commence.

Aboriginal Consultation and Engagement

- *HEP consults Aboriginal groups on preferred engagement activities for project (e.g. Aboriginal Technical Design Committee)*
- *HEP consults Aboriginal groups on project concept*
- *HEP identifies potential habitat values (i.e. credit estimates) that could be created and engages with interested Aboriginal Groups*
- *Aboriginal groups share Traditional Knowledge with HEP*
- *HEP identifies opportunity for involving Aboriginal groups in field studies and assessments*
- *HEP commences planning for Aboriginal involvement throughout project (e.g. contracting, employment and training opportunities)*

Phase 3 - Design Development

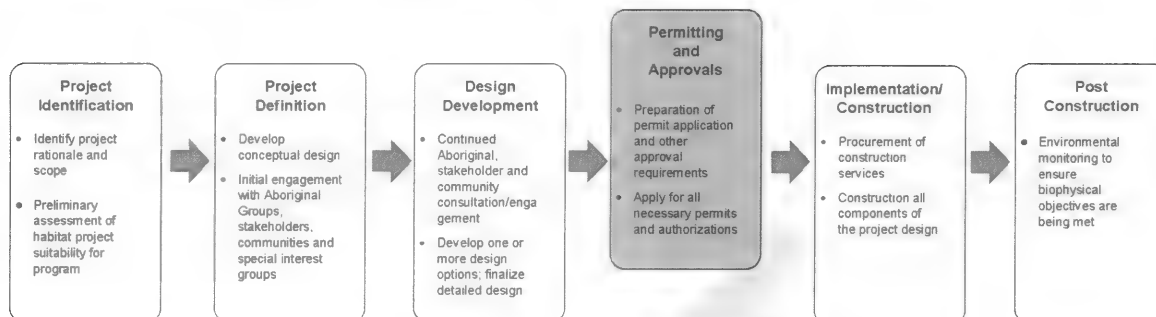


In the design phase, one or more designs are developed and evaluated. Through an iterative design process, a final design is selected and is refined to include all details necessary for construction.

Aboriginal Consultation and Engagement

- HEP consults Aboriginal groups on the design options
- HEP considers Aboriginal feedback and refines design of project where appropriate (including selection of plant species)
- Where required, HEP undertakes further consultation with Aboriginal groups on the design
- HEP finalizes the design
- HEP shares final design with Aboriginal groups
- HEP confirms habitat values (i.e. credits) and consults with Aboriginal groups
- HEP obtains DFO confirmation of appropriateness of habitat project for the Habitat Enhancement Program
- HEP plans for continued Aboriginal involvement in subsequent phases

Phase 4 - Permitting and Approvals



Permits and approvals that are required must be addressed on a project-by-project basis as regulatory requirements and land ownership can vary significantly.

Aboriginal Consultation and Engagement

- *HEP engages with Aboriginal groups in relation to permits and approvals*
- *HEP develops a summary of permits and approvals required and shares with Aboriginal groups*
- *HEP seeks Aboriginal input and support on permit applications*
- *HEP notifies Aboriginal groups on submission of permit applications*
- *Regulators and permitting authorities may undertake Aboriginal consultation*
- *HEP plans for continued Aboriginal involvement in subsequent phases*

Phase 5 -Implementation/Construction

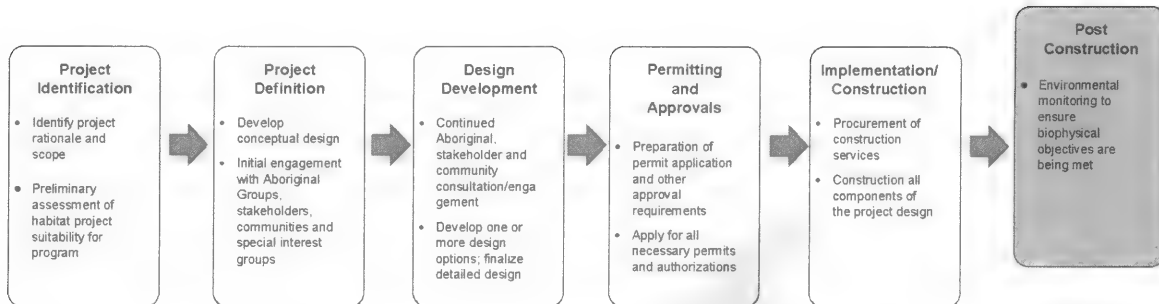


The habitat project truly takes shape during the Implementation/Construction Phase as all the effort

Aboriginal Consultation and Engagement

- *HEP identifies approach to procurement and determines opportunities for Aboriginal involvement/benefits*
- *HEP monitors conditions of approval/permits and any commitments to Aboriginal groups*
- *HEP continues to keep Aboriginal groups updated on progress of construction*
- *HEP plans for continued Aboriginal involvement in Post Construction Phase*

Phase 6- Post Construction



Aboriginal Consultation and Engagement

- *HEP shares Post Construction Monitoring Plan with Aboriginal groups*
- *Potential contracting opportunities for Aboriginal groups (e.g. maintenance, monitoring)*

Fisheries Protection Program's Interim Guide to Proponent-led Habitat Banking

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Fisheries Protection Program's Interim Guide to Proponent-led Habitat Banking

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Disclaimer

This guide is for information purposes only. It is not a substitute for the *Fisheries Act*, *Species at Risk Act*, or their regulations. In the event of an inconsistency between this guide and the *Fisheries Act*, *Species at Risk Act* or their regulations, the *Fisheries Act*, *Species at Risk Act* or their regulations, as the case may be, would prevail.

1.0 Purpose

The *Interim Fisheries Protection Program's Guide to Proponent-led Habitat Banking* provides operational guidance on planning, establishing and managing proponent-led habitat banks. It builds on the general policy guidance provided in the *Fisheries Protection Policy Statement* (October 2013)¹, and the *Fisheries Productivity Investment Policy: A Proponent's Guide to Offsetting* (November 2013)².

This Interim Guide was prepared by the Fisheries Protection Program (FPP) of Fisheries and Oceans Canada (DFO) to assist program staff and proponents of existing or proposed works, undertakings or activities (here after referred to as projects) in meeting their offsetting requirements for a *Fisheries Act* authorization or a *Species at Risk Act* (SARA) permit. The main purpose of this Guide is to assist DFO-FPP practitioners and proponents when planning, establishing, and administering proponent-led habitat banks.

This Guide presents a nationally-consistent approach to developing, monitoring, and tracking proponent-led habitat bank arrangements. It aims to provide a clear understandable arrangement for managing proponent-led habitat banks that result in increased certainty for their administration.

2.0 Legislative and Policy Context

DFO-FPP is responsible for the administration of the Fisheries Protection Provisions of the *Fisheries Act* and certain permitting provisions of SARA. DFO shares the responsibility for the implementation of SARA with Parks Canada and Environment and Climate Change Canada. The Minister of Fisheries and Oceans is the competent minister responsible for aquatic species at risk, other than individuals in or on federal lands administered by the Parks Canada Agency.

The DFO-FPP provides advice to proponents to enable them to proactively avoid and mitigate the adverse effects of their proposed development projects on fish and fish habitat. The DFO-FPP requires that any residual serious harm to commercial, recreational or Aboriginal (CRA) fisheries requiring authorization under the *Fisheries Act* be counterbalanced by undertaking appropriate offsetting measures. Similarly, adverse effects on a listed aquatic species at risk, or the destruction of any part of its critical habitat or residences that require a permit under SARA, may also require the application of measures to offset the adverse effects to ensure the activity will not jeopardize the survival or recovery of the species.

Section 6 of the *Fisheries Act* requires that before exercising any power under subsection 20(2) or (3) or 21(1), paragraph 35(2)(b) or (c) or subsection 35(3), the Minister must consider, among other factors, whether there are measures and standards to avoid, mitigate or offset serious harm

¹ Canada. Fisheries and Oceans Canada. Fisheries Protection Program. Fisheries Protection Policy Statement. Ottawa, 2013. <http://www.dfo-mpo.gc.ca/pnw-ppe/pol/PolicyStatement-EnoncePolitique-eng.pdf>

² Canada. Fisheries and Oceans Canada. Fisheries Protection Program. Fisheries Productivity Investment Policy: A Proponent's Guide to Offsetting. Ottawa, 2013. <http://www.dfo-mpo.gc.ca/pnw-ppe/offsetting-guide-compensation/offsetting-guide-compensation-eng.pdf>

to fish that are part of a CRA fishery, or that support such a fishery. A proponent-led habitat bank can be an effective and efficient way of implementing an offset.

Correspondingly, paragraph 73(3)(c) of SARA establishes that the Minister must be of the opinion that the required pre-conditions have been met before an agreement may be entered into, or a permit issued. Specifically, offsetting measures may be required to ensure that the adverse effects of a project will not likely jeopardize survival or recovery of the species.

It is important to note that some of the language in the guide is deliberately generic in nature to accommodate differences in terminology between the *Fisheries Act* and the *Species at Risk Act*.

3.0 Defining a Proponent-led Habitat Bank

A proponent-led habitat bank is a freshwater or marine area that is a wetland, stream, lake, estuary, bay, or other aquatic resource area that has been created, restored, or enhanced by undertaking habitat improvement projects (known as 'conservation projects'). These habitat improvement projects take place in advance of requesting an authorization or permit under the *Fisheries Act* and/or SARA, for the purpose of providing offsetting measures for unavoidable residual adverse effects to fish and fish habitat. This formalized approach of undertaking the habitat improvement projects in advance, establishes habitat credits that may be drawn upon by proponents to counterbalance residual adverse effects of projects on fish and fish habitat at a later date.

A proponent-led habitat bank enables a single proponent of multiple development projects, with anticipated future residual impacts on fish and fish habitat (that will generally require an authorization) to create, restore or enhance an area, or several areas of fish habitat to generate measurable improvements to that fish habitat. Those measurable benefits can then be banked and applied to meet future offsetting requirements.

Proponent-led habitat banks have a number of advantages over project-specific offsets because habitat banks are generally more strategic, larger-scale conservation projects that are more likely to ensure ecosystem functions, foster biodiversity, and provide opportunities for linking fragmented habitats. Proponent-led habitat banks can also be supported by extensive financial resources, planning, and scientific expertise not always available for many project-specific offsetting projects, resulting in economies of scale, potentially improving the effectiveness of the offsetting measures, and streamlining processes for authorizing works, undertakings or activities associated with projects.

Proponent-led habitat banks may be useful when a proponent is likely to affect fish and fish habitat resulting from the construction, operation, and long-term maintenance of components of large scale projects, such as:

- linear development projects (e.g., provincial highways, railways, pipelines);
- harbours (e.g., commercial shipping terminals, fishing harbours, marinas)
- non-renewable resource extraction operations (e.g., oil sands mining);

- renewable resource extraction and transportation operations (e.g., forestry)
- electricity generation facilities (e.g., hydro dams, underwater power cables, nuclear facilities); and
- municipal infrastructure (e.g., erosion and sediment control structures, bridges and culverts).

4.0 Guiding Principles and Implementation Framework for Proponent-Led Habitat Banks

This section sets out the guiding principles and implementation framework for the development and administration of proponent-led habitat banks.

4.1 Principles:

- New proponent-led habitat banks and the renewal of existing habitat banks will be managed under a formal arrangement between DFO and each proponent. Proponent-led habitat bank arrangements are intended to cover all of a proponent's habitat banking activities.
- Proponent-led habitat banks must meet the principles established in *the Fisheries Productivity Investment Policy: A Proponent's Guide to Offsetting* which are: 1) offsetting measures must support fisheries management objectives or local restoration priorities; 2) benefits from offsetting measures must counterbalance the adverse effects on fish and fish habitat caused by the project; 3) offsetting measures must provide additional benefits to the fishery; and 4) offsetting measures must generate self-sustaining benefits over the long-term.
- The establishment and management of a proponent-led habitat bank must include the engagement of Indigenous groups and key stakeholders that may be affected by the proponent-led habitat bank's conservation projects and the fisheries benefits they generate. Aboriginal and Treaty rights must be considered in the planning and establishment of a proponent-led habitat bank, and in particular planning the conservation projects and defining the service areas to ensure there are no resulting adverse impacts on Aboriginal or Treaty rights. It is considered good practice to provide feedback on the status of the habitat bank to Indigenous groups and stakeholder groups affected by the proponent-led habitat bank.
- Establishment of a proponent-led habitat bank should be based on the ecosystem context appropriate for the area within which the habitat bank is to be created, and with a suitable geographic or spatial scale that is informed by sound science, and community and traditional knowledge.
- Proponent-led habitat banks should employ an adaptive management approach informed by monitoring of appropriate fish habitat indicators and performance targets and making adjustments, as required, to ensure that identified fisheries benefits are achieved in

advance of any future development project impacts that that habitat bank may be used to offset.

- Where aquatic SAR are present, proponent-led habitat banks must consider the species and its habitats. Numerous Recovery Strategies, Action Plans and Management Plans for aquatic SAR in Canada have been developed and approved by the Minister of Fisheries and Oceans³ which detail priority recovery measures necessary for the survival and/or recovery of aquatic SAR. When specific conditions are met, opportunities to undertake conservation projects involving the creation, restoration or the enhancement of the habitat of aquatic SAR should be given priority.

4.2 Framework for Implementation

The above principles create the foundation for establishing an effective proponent-led habitat bank. These principles and the following framework are intended to form the rule-base that applies to the development and implementation of the three components of proponent-led habitat banks: i) the memorandum of understanding that establishes the agreement (i.e., proponent-led habitat bank arrangement); ii) the habitat creation, restoration and enhancement projects (i.e. conservation projects); and iii) the area within which the habitat bank operates (i.e., service area).

4.2.1 Proponent-led Habitat Bank Arrangement

A proponent-led habitat banks is established through a Memorandum of Understanding (MOU) between DFO and the proponent.. The MOU (called an arrangement) forms the basis for the management and administration of the habitat bank.

- A proponent-led habitat bank can only be established and managed according to the terms and conditions set out in a proponent-led habitat bank arrangement between DFO and the proponent (Appendix 4).
- A proponent-led habitat bank arrangement does not commit DFO to the authorization or permitting of any future work, undertaking or activity requiring an authorization under paragraph 35(2)(b) of the *Fisheries Act*, or section 73 of SARA. All future projects will be reviewed on their own merit and a decision on whether to authorize or permit will be made independent of the existence of a proponent-led habitat bank arrangement. Any related communications between DFO and the proponent of a proponent-led habitat bank do not constitute a representation or commitment of any kind regarding authorization of any future projects by DFO, nor a commitment that any habitat credits that may be issued to the proponent will be acceptable in the context of any given future applications for *Fisheries Act* authorization or SARA permit.

³ Canada. Species at Risk Public Registry. <https://www.registrelep-sararegistry.gc.ca/default.asp?lang=En&n=24F7211B-1>

- The habitat credits established by a proponent-led habitat bank can only be used by the proponent that is responsible for the implementation of the terms and conditions of the proponent-led habitat bank arrangement.
- The implementation and administration of a proponent-led habitat bank arrangement must be performance-based, with clear measurable fish habitat indicators and performance targets. Fish habitat indicators should be able to demonstrate that the conservation project provides fisheries benefits to CRA fisheries and/or aquatic SAR.
- Only proposed works, undertakings, or activities that demonstrate adherence to the hierarchy of measures⁴ will be considered for eligibility to use the credits from a proponent-led habitat bank. This means that efforts are made to avoid impacts first, followed by applying mitigation measures to reduce impacts that could not be avoided. A. After these measures are taken, any residual impacts that would normally require authorization under SARA or the *Fisheries Act* could then be addressed by offsetting.

4.2.2 Conservation Projects Contributing to a Proponent-led Habitat Bank

A conservation project of a proponent-led habitat bank arrangement represents the location where fish habitat creation, restoration and/or enhancement measures that modify fish habitat in a way that will result in defined fisheries benefits are constructed.

- While intended to provide benefits to fisheries, the conservation projects may include works, undertakings or activities that could contravene the fisheries protection provisions of the *Fisheries Act* and the conservation project itself may therefore require a *Fisheries Act* authorization in order to proceed. In such a case, the proponent would therefore, be subject to the *Applications for Authorization under Paragraph 35(2)(b) of the Fisheries Act Regulations*.⁵ Similarly, the construction and maintenance of conservation projects that could contravene the prohibitions of SARA will require a SARA permit or a *Fisheries Act* authorization that includes SARA conditions. Proponents must also comply with all other federal, provincial, territorial and municipal requirements that apply to their conservation project.
- Conservation projects must be habitat-focused, and use fish habitat creation, restoration and enhancement measures, where the modifications to the fish habitat and the resulting fisheries benefits directly contributes to a CRA fishery and/or to the survival and recovery of an aquatic SAR. Therefore, the fish habitat that is created, restored or enhanced is afforded protection by the fisheries protection provisions of the *Fisheries Act* or the SARA prohibitions.

⁴ Canada. Fisheries and Oceans Canada. Fisheries Protection Program. Fisheries Productivity Investment Policy: A Proponent's Guide to Offsetting. Ottawa, 2013. <http://www.dfo-mpo.gc.ca/pnw-ppe/offsetting-guide-compensation/offsetting-guide-compensation-eng.pdf>

⁵ Canada. Fisheries and Oceans Canada. Fisheries Protection Program. Applications for Authorization under Paragraph 35(2)(b) of the Fisheries Act Regulations, SOR/2013-191. <http://laws-lois.justice.gc.ca/PDF/SOR-2013-191.pdf>

- Conservation project plans must be based on expert advice with respect to the baseline conditions of the fish habitat at the conservation project site.
- In the context of a proponent-led habitat bank, chemical and biological manipulation or complementary measures are not suitable as conservation projects on their own. However, there may be situations where it would be appropriate for chemical and biological manipulation techniques to be included as one of several components of an adaptive approach. This could include a biological treatment (e.g., fish are stocked or vegetation is planted) to colonize a created habitat feature and establish a self-sustaining population or a chemical treatment is applied to create the ideal conditions necessary for fish that are essential to achieve self-sustaining fisheries benefits.
- Conservation project plans must not include the restoration of habitat for which another person or organization is clearly responsible for its impairment or degradation. However, the restoration of orphaned sites – those with no known responsible party or owner or with no possibility of restoration due to company closure, bankruptcy or other similar circumstance – could be considered an appropriate conservation project for a proponent-led habitat bank.

4.2.3 Service Area

A service area of a proponent-led habitat bank arrangement is the geographical area or boundary that encompasses the habitat bank's conservation project(s) that can reasonably be expected to provide appropriate offsetting for the residual adverse effects to fish, fish habitat and associated CRA fisheries from their development project(s) that are likely to occur within that area in the future.

- The service area of a habitat bank must be defined in the proponent-led habitat bank arrangement.
- The determination of the service area must be based on the consideration of ecological criteria, fisheries management objectives, including the survival and recovery of aquatic SAR, and, if applicable, jurisdictional boundaries.

5.0 Proponent-led Habitat Banking Process

The proponent-led habitat banking process has three phases:

- i) arrangement administration (see section 5.1);
- ii) defining the service area and managing conservation projects (see section 5.2); and
- iii) applying the habitat credits to an authorization (see section 5.3).

A detailed illustration of the process included in Figure 3 in Appendix 1.

5.1 Arrangement Administration

Proponent-led habitat banks may be established by proponents that may include a government agency, corporation, non-profit organization, an individual or other entity under an arrangement with DFO. There are several steps involved in the administration and management of a proponent-led habitat bank arrangement. The following sections describe the key steps. (see Figure 1).

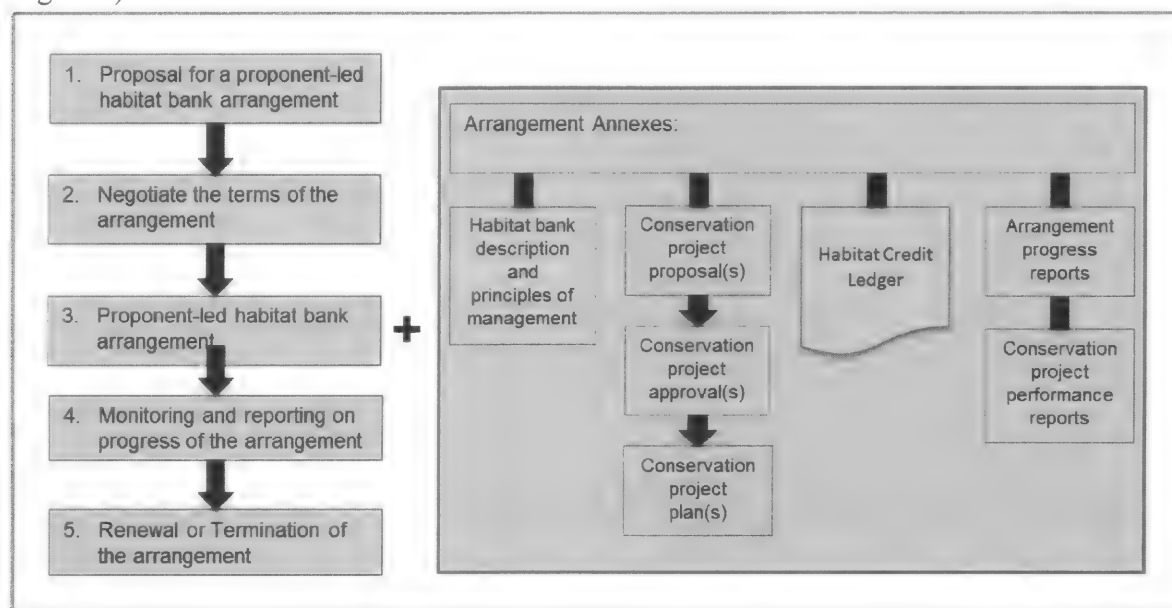


Figure 1: The key steps involved in the administration and management of a proponent-led habitat bank

5.1.1 Proposal for Proponent-Led Habitat Bank Arrangement

Proponents interested in establishing a proponent-led habitat bank are encouraged to engage DFO-FPP early in the planning process and to confirm their desires to enter into a proponent-led habitat bank arrangement by submitting a written proposal to the appropriate DFO-FPP Regional Office. See Appendix 2 for more details on the information requirements a proponent must submit as part of their proposal for a proponent-led habitat bank.

5.1.2 Approval to Negotiate the Terms of the Proponent-Led Habitat Bank Arrangement

Once a proponent has indicated an interest in establishing a proponent-led habitat bank, DFO-FPP staff are required to review the proposal and if warranted seek approval from the Regional Director of Ecosystems Management to begin negotiations with the proponent. A briefing note template is available to obtain this approval (see Appendix 3).

5.1.3 Management of Proponent-led Habitat Bank Arrangement

A proponent-led habitat bank will be managed by DFO-FPP in partnership with the proponent, guided by the proponent-led habitat bank arrangement and this guidance document. The proponent-led habitat bank arrangement is the administrative tool that defines the accountability, and clearly articulates the roles and responsibilities of the Department and the proponent in the context of a habitat bank. It identifies the terms and conditions under which the habitat bank will be established, managed, and operated. It includes the required annexes, describes the location of the bank service areas, the conservation projects sites, the numbers and types of habitat credits to be established and how they will be released⁶ to the habitat credit ledger, and how the bank will be managed and conserved for the long-term. It also describes long-term access to the site, and identifies requirements such as site assessments, contingency plans and monitoring programs. It is flexible in nature to accommodate undertaking one or multiple conservation projects to offset the residual adverse effects on fish and fish habitat caused by one or multiple projects. Details of each conservation project are appended to the agreement in an annex as they are proposed and approved. An annotated proponent-led habitat bank arrangement template is available in Appendix 4.

5.1.4 Departmental Approval of the Proponent-led Habitat Bank Arrangement

A blanket Impact Assessment has been prepared and approved by the DFO Departmental Legal Services Unit, to cover all proponent-led banking activities undertaken by DFO-FPP, following the approach laid out in this Interim Guide. No additional Impact Assessments are required for proponent-led habitat banking arrangements.

5.1.5 Roles and Responsibilities Under the Proponent-led Habitat Bank Arrangement

The roles and responsibilities will be defined in the proponent-led habitat bank arrangement and include the following:

DFO-FPP regional staff are responsible for:

- Jointly managing the performance of the arrangement;
- Reviewing, providing advice and processing conservation project proposals;
- Reviewing conservation project progress reports, validating habitat credit balances in the habitat credit ledger, and accurate and timely processing habitat credit ledger transactions;
- Verifying the reported results of conservation project monitoring and performance reports as needed;

⁶ Bank credit release: means that monitoring of the habitat indicators has achieved the performance target(s) and has been validated by Departmental staff confirming that the bank credit(s) are providing the intended fisheries benefits, the bank credit(s) can be logged on the habitat credit ledger, and the bank credit(s) are available to be used as an offset for future adverse effects on fish and fish habitat if appropriate.

- Including conservation sites on their Regional Strategic Monitoring Plan and when appropriate carry-out direct monitoring (i.e., a site visit to gather and analyze samples or information in order to directly verify compliance and effectiveness) and/or indirect monitoring (i.e., an assessment of information provided in performance reports to verify compliance and effectiveness) to verify that the implementation of the conservation project is following the established process and producing the desired results;
- Managing arrangement following departmental policies, and track arrangement activity in the Program Activity Tracking for Habitat (PATH) following Data Entry Protocol; and
- Reviewing and processing progress reports of the arrangement.

The proponent of the habitat bank is responsible for:

- Jointly managing the performance of the arrangement;
- Designing, constructing, monitoring, maintaining, and protecting conservation project sites;
- Meeting all other federal, territorial, provincial and municipal requirements that apply to their conservation projects;
- Reporting on performance of their conservation projects;
- Accurately maintaining a copy of the habitat credit ledger; and
- Preparing and submitting annual progress reports for the arrangement.

5.1.6 Monitoring and Reporting of the Proponent-led Habitat Bank Arrangement

Monitoring and reporting on the arrangement's performance is an important step demonstrating progress has been achieved. The monitoring must facilitate regular reviews of the arrangement (e.g., annually) in order to confirm that the partnership is achieving its purpose, the proponent-led habitat bank is functioning as intended, and to identify and address issues. Performance indicators set out in the arrangement will inform the monitoring and reporting requirements.

The arrangement will also be subject to an agreed upon regular review term, where the effectiveness of activities under the arrangement will be analysed. The Department may establish a review team consisting of the proponent, Departmental staff or appropriately qualified third-party representatives to carry out the review. This review team will report to the Department within six months of being established. The finding of the review may be used in the arrangement renewal decision.

5.1.7 Renewal and Termination of the Proponent-led Habitat Bank Arrangement

All proponent-led habitat bank arrangements will expire after an agreed upon term as identified in the agreement. The proponent of the habitat bank can request a renewal of the arrangement for

an additional defined term by providing one year's written notice to the Department. The arrangement can be terminated at any time by providing six months written notice.

5.2 Defining the Service Area and Managing Conservation Projects

A proponent-led habitat bank has two distinct components (1) the service area, that is, the geographic area in which authorized adverse effects on fish and fish habitat can be offset by habitat credits established within the service area; and (2) the conservation projects, that is, the physical site or sites, within the service area, where fish habitat is created, restored, or enhanced to establish habitat credits to offset authorized adverse effects on fish and fish habitat.

5.2.1 The Service Area

The determination of the service area should be based on consideration of ecological criteria (e.g., watershed boundary, drainage area, eco-zone, bay, lake, etc.), fisheries management objectives, including the survival and recovery of aquatic SAR, and, if applicable, jurisdictional boundaries. The geographic extent of a service area should, to the extent possible, be guided by the ecosystem context with an interest to integrate the proponent-led habitat bank with fisheries management objectives and other resource management plans.

Defining a larger service area than that supported by the ecological criteria may also be appropriate for proponent-led habitat banks whose primary purpose is to offset for linear projects that typically involve numerous small-scale effects on fish and fish habitat in several different watersheds or ecological units.

Habitat banks with more than one type of habitat credit may have different service areas designated for different credit types. This area must be defined in the proponent-led habitat bank arrangement.

Figure 2 is an example of a service area for a proponent-led habitat bank. In this example, the proponent of the habitat bank for the city has defined the boundaries of the service area based on their civil boundaries which are all within a single watershed. All of their conservation projects are located within the service area, and the banked fisheries benefits that the conservation projects provide are intended to be used to offset the residual adverse effects on fish and fish habitat caused by their future proposed development projects that will take place within the service area.

5.2.2 Conservation Projects

Conservation projects, that are eligible for habitat banking, are identified as part of a proponent-led habitat bank arrangement and include fish habitat creation, restoration and enhancement measures that modify fish habitat in a way that will result in defined fisheries benefits (i.e., enhance specific fish habitat functions). The goal of the conservation project is to contribute

either directly to the productivity of a CRA fishery or to the survival and recovery of an aquatic SAR.

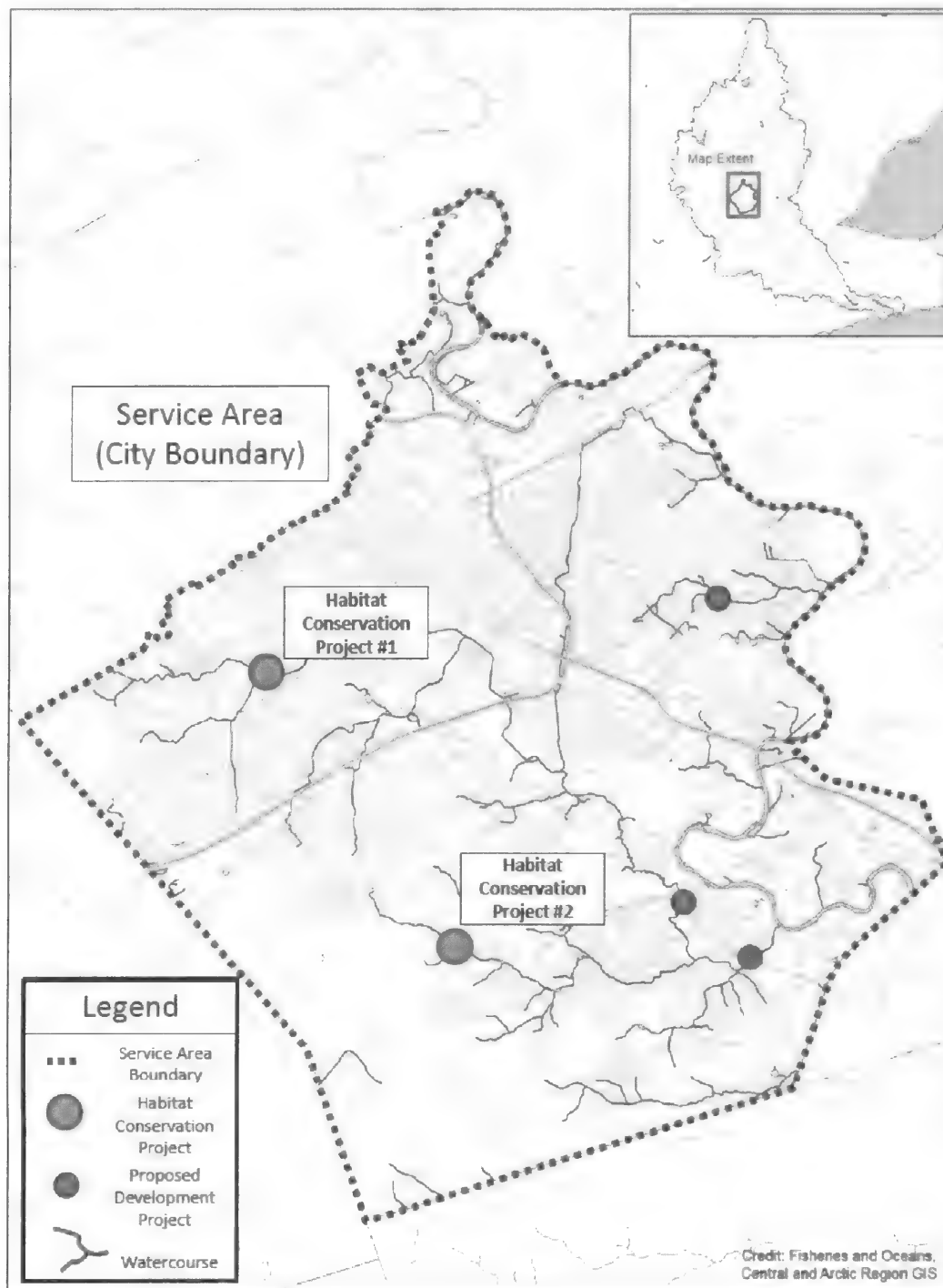


Figure 2: An example of a service area map

The conservation project site is the physical location where the conservation project is constructed. The selected site should have the ecological suitability for achieving the fisheries productivity benefits (i.e., possess the physical, chemical and biological attributes to support establishment of the desired fish habitat features and functions). Size and location of the site relative to other ecological features, hydrologic sources, and compatibility with adjacent fish habitat, and fisheries management objectives are important factors for consideration. Other significant factors for consideration include, but are not limited to, fisheries management plans and objectives (including recovery strategies, management and action plans under SARA), development trends (i.e., anticipated adjacent land-use changes), fish habitat status and trends, fish habitat connectivity, water quality, and the relative potential for chemical contamination of the fish habitat and/or other fisheries resources.

To the extent possible, conservation projects should be planned and designed to be self-sustaining over time. The techniques for constructing fish habitat must be carefully selected, based on the best available science and guidance. The use of proven techniques in the restoration of degraded fish habitat increases the likelihood of success.

Proposed creation, restoration and enhancement techniques should be well-understood and reliable. When uncertainties surrounding the technical feasibility of proposed techniques exist, contingency plans and additional monitoring requirements should be put in place by the proponent to increase the likelihood of achieving the stated/measurable/desired fisheries benefits. These measures may be phased-out or reduced once the fish habitat performance indicator targets are achieved and have demonstrated their persistence.

5.2.3 Conservation Project Plan

The proposed conservation projects should be described in the conservation project plan. The development of a conservation project plan is similar to the development of an offsetting plan described in the *Fisheries Productivity Investment Policy: A Proponent's Guide to Offsetting* and must meet the guiding principles for offsetting measures set out in that Guide. Appendix 2 includes a list of the components of a conservation project plan.

The plan should begin with a goal statement that describes the desired fisheries benefits that will be provided, and a description of the measures that will be implemented to provide those benefits. It should also include the fish habitat structures, functions and attributes that are necessary to achieving the desired fisheries benefits and the performance indicators that will measure success of the project. It is important to articulate clearly the fish habitat indicators and performance targets that are linked to the goal of the conservation projects, and that provide benchmarks for measuring progress, as well as a schedule that reflects the timeline, start and end dates for implementing the plan (See Annex A and B to the Habitat Bank Arrangement in Appendix 4).

The fisheries benefits are the expected changes from the baseline condition of the fish habitat and should be described in terms of the type of fish habitat and the fish community the conservation projects will support. This can be used to identify the types of habitat credits and how many credits will be established. It is important to carefully describe and quantify the fisheries benefits because these are the benefits that will be used as offsetting measures (i.e. credits) to counterbalance the proposed losses of a development project in the future.

The plans should also clearly document what type of habitat credits that will be generated in terms of the benefits they provide with respect to CRA species or SAR species. For example fish habitat that is managed to enable an assemblage of CRA fishes to directly carry out their life processes, and that can be reasonably expected to offset residual serious harm to fish in a particular service area should be tracked as distinctly different than aquatic habitat that is managed to contribute to specific survival and recovery needs of an adversely affected SAR or an assemblage of SAR in a particular service area.

5.2.4 Establishing Fish Habitat Indicators and Performance Targets

Fish habitat indicators are physical, chemical or biological attributes of fish habitat that can be measured and can be used to detect or assess the condition of fish habitat, and to monitor changes in that condition over time. As such, they can be used to monitor the effectiveness of conservation projects and assessed against performance targets. Although it is not possible to measure all aspects of the fish habitat, it may be appropriate to choose suitable surrogates that can be used to assess the effectiveness of a conservation project in achieving its intended benefits to fisheries productivity, and for habitat credit verification and release to the habitat credit ledger.

Fish habitat indicators can also be used to establish a phased approach to habitat credit verification and release to the habitat credit ledger. The details of the fish habitat indicators and performance targets for each phase of the conservation project should be included in the conservation project plan.

The performance target is the desired specific value or range of the fish habitat indicator that success is measured against and provides evidence that the conservation projects have contributed to achieving the intended fisheries benefits. An effective performance target should relate to the intended fisheries benefits, be reasonably achievable, and take into account the range of natural variability of the indicator expressed in that environment. Setting a performance target involves knowing the environment and what can be realistically achieved within that environment.

5.2.5 Habitat credit Valuation

FPP staff and the proponent should mutually agree upon the value of a habitat credit and the unit of measure. A variety of metrics or units of measure may be used, but generally, this is based on the amount of physical fish habitat created, restored, or enhanced and the intended fish habitat functions (i.e., the life cycle processes the habitat supports for the fish community). The unit of

measure and the value of the credits are to be described in the conservation project plan, and posted to the fish habitat ledger (e.g., see Annex C of Appendix 4) as outlined in the conservation project plan and the arrangement.

For example, credits could be based upon the quantity of fish habitat (e.g., m² or ha), and a description of how it functions for the fish community across life stages, species and habitat types. More complex approaches could employ a variety of equivalency analyses that require a common currency (e.g., equivalent adults⁷) that may be used to quantify the benefits to fisheries productivity across fish life stages, species and habitat types.

A proponent-led habitat bank's conservation projects must be constructed and demonstrate that they have achieved or surpassed the performance target for the fish habitat indicators before habitat credits will be earned. This could include a phased approach that would allow for habitat credits to be allocated as various fish habitat indicator performance targets are achieved over time.

The availability of habitat credits within a proponent-led habitat bank does not commit DFO to the authorization or permitting of any future work, undertaking or activity requiring an authorization under paragraph 35(2)(b) of the *Fisheries Act*, or permit under section 73 of SARA. It is important to recognize that there are limits to offsetting, and some adverse effects to fish and fish habitat are so great that no offset (or habitat credit) could appropriately compensate for the loss fish or fish habitat.

5.2.6 Conservation Project Monitoring and Reporting

Proponents are responsible for implementing conservation projects and monitoring their effectiveness, as well as for reporting on implementation and the results of monitoring to DFO-FPP. Monitoring must be designed to confirm that the conservation project has been effective in providing the intended fisheries benefits and may identify the need for contingency measures should deficiencies be found.

The conservation project monitoring and reporting requirements should be described in the conservation project plan which will be appended to the proponent-led habitat bank arrangement. The foundation of the monitoring plan is the fish habitat indicators that related to appropriate ecological attributes and the associated performance targets. The purpose of the fish habitat indicators is to demonstrate that the conservation project is providing the intended self-sustaining fisheries benefits, and will be used to verify that habitat credits are available for release to the habitat credit ledger. Therefore the monitoring measures should be geared specifically to fish habitat indicators. Common monitoring and reporting requirements should include:

- schedule and timelines for monitoring and reporting;

⁷ Canada, Fisheries and Oceans Canada. Canadian Science Advisory Secretariat. Science Guidance for Fisheries Protection Policy: Advice on Equivalent Adult Calculation. Ottawa, 2015. Science Advisory Report 2015/011. http://publications.gc.ca/collections/collection_2015/mpo-dfo/Fs70-6-2015-011-eng.pdf

- dated photographs of key milestones during the construction and operations of the conservation project;
- monitoring and inspection records;
- details of any changes to mitigation , corrective actions or contingency measures that were applied in the event that mitigation or fish habitat indicator failed to function as described (i.e., in comparison to the performance target or as outlined in the adaptive management plan); and
- the sampling methodology and criteria for the fish habitat indicators that will be used to evaluate the success of the conservation project.

In addition, the monitoring results can be used to inform an adaptive management approach that relies on the implementation of various maintenance and/or contingency measures if it is determined that the performance targets for fish habitat indicators are not being achieved. Maintenance of the conservation project is the responsibility of the proponent. Further, should a conservation project not meet its performance target for a fish habitat indicator because of poor design or implementation, the proponent is also responsible for the repair of, or adjustments to, the conservation project, as set out in the conservation project plan.

Additional information on standardized approaches to monitoring to determine the effectiveness of a conservation project can be found in Smokorowski et al. (2015)⁸.

The submission of monitoring reports to assess the development and condition of the conservation project is required as per the schedule outline in the conservation project plan, but the content and level of detail for those monitoring reports must be commensurate with the scale and scope of the intended fisheries benefits. The content and level of detail for monitoring reports and the frequency for submitting the monitoring reports should be included in the monitoring plan for each conservation project.

DFO-FPP may also monitor the conservation project site to verify the information provided in the monitoring reports and to assess the extent to which the conservation project plan is being correctly implemented and effectively providing the intended fisheries benefits. DFO-FPP monitoring may include a site visit or inspection to gather samples or information or audit the information provided in the monitoring report to verify compliance or effectiveness of the

⁸ Smokorowski, K.E., Bradford, M.J., Clarke, K.D., Clément, M., Gregory, R.S., Randall, R.G. 2015. Assessing the effectiveness of habitat offset activities in Canada: Monitoring design and metrics. Can. Tech. Rep. Fish. Aquat. Sci. 3132: vi + 48 p.

conservation project. For more details about the Department's activities please refer to Fisheries Protection Program National Monitoring Framework⁹.

5.2.7 Conservation Project Site Ownership or Land Tenure

Habitat bank proponents are responsible for the design, construction, monitoring, maintenance, and long-term protection and stewardship of the conservation project sites. It is required that lands, water sources or water bodies needed to implement the conservation project plan be either owned by the proponent, or the proponent has authorization to access and utilize those resources to implement the plan.

Land ownership or land tenure is important to safeguards the protection of conservation project sites so the fisheries benefits that they represent are available when they are needed to offset adverse effects to fish and fish habitat. Land ownership or land tenure also ensures that departmental staff or other appropriate representatives have access to conservation project site to carryout compliance and effectiveness monitoring of the site when warranted.

The long-term stewardship of the conservation bank sites by proponents is consistent with DFO's *Fisheries Productivity Investment Policy: A Proponent's Guide to Offsetting* principle 4, which requires that offsets, from a project-specific offset or a habitat bank, generate self-sustaining benefits to fisheries productivity; and those benefits to the fisheries should last at least as long as the adverse residual impacts from the development project for which the offset is being used to compensate. Land tenure agreements can be effective at restricting harmful activities that might otherwise jeopardize the purpose of the offset or conservation project site.

5.3 **Applying the Habitat Credits to an Authorization**

The final phase begins when the proponent, as part of a request for review or an application for authorization, includes a request to use of habitat credits to offset the residual adverse effects on fish and fish habitat, and submits a request for review or an application for *Fisheries Act* authorization (with or without SARA conditions) to DFO-FPP.

The use of habitat credits to offset residual impacts of a proposed work, activity or undertaking will be determined on a case-by-case basis – based upon various considerations, including but not limited to, the principles set out in the offsetting guide, the consideration of the *Fisheries Act* section 6 factors, the requirements to protect Aboriginal and Treaty rights, environmental assessment outcomes, and SARA considerations. Upon approval, DFO-FPP logs the habitat credit transaction in the habitat credit ledger.

⁹ Canada. Fisheries and Oceans Canada. Fisheries Protection Program. Fisheries Protection Program National Monitoring Framework. Ottawa, 2015. http://intra.dfo-mpo.gc.ca/hq/fishmgmt/directorates/eo/fisheries-protection-prog/doc/FPP%20National%20Monitoring%20Framework%20-%20v1_EN.pdf

6.0 For More Information

For more information about DFO's Fisheries Protection Program, please consult the [Fisheries Protection Program website](#).

7.0 Appendix 1: Summary of the Proponent-led Habitat Bank Process

Phase 1: Arrangement Administration

1. Proponent proposes to establish a habitat bank
 - The planning phase is initiated by the proponent, who ultimately takes the lead on identifying and proposing the proponent-led habitat bank;
 - Fisheries and Oceans Canada Fisheries Protection Program (DFO-FPP) practitioner provides general guidance to the proponent to complete the proposal;
 - Proponent submits the proposal for DFO-FPP consideration;
 - DFO-FPP practitioner seeks approval from Regional Director to negotiate the terms and conditions of the proponent-led habitat bank arrangement (see Appendix 3 for the Approval to Negotiate a Proponent-led Habitat Bank Arrangement template).
 - DFO-FPP practitioner initiates PATH file for the proposal
2. Proponent and FPP practitioner negotiate the terms and conditions of the proponent-led habitat bank arrangement
 - DFO-FPP practitioner drafts proponent-led habitat bank arrangement and seeks approval and signatures (See Appendix 4 for the Annotated Proponent-led Habitat Bank Arrangement template)
3. DFO-FPP practitioner files the proponent-led habitat bank arrangement and provides copy to the proponent.
4. Proponent submits habitat bank arrangement progress report for DFO-FPP review. Once approved by the Regional Director, the report is filed.

Phase 2: Conservation Projects

5. Proponent submits conservation project proposal
 - The proponent follows the guidance in this guide and in Appendix 2 to prepare the proposal for a conservation project plan;
 - DFO-FPP practitioner provides guidance to proponent to finalize the proposal;

- Proponent submits the finalized proposal for DFO-FPP consideration;
 - DFO-FPP practitioner determines if a *Fisheries Act* authorization or SARA permit is required for the construction and maintenance of the conservation project. If such an authorization or permit is required, the proponent is directed to submit an application for an authorization or SARA permit (see phase 3).
 - Once the authorization or permit is issued (if required), DFO-FPP approves the conservation project plan and includes the plan in Annex B of the Arrangement.
6. Proponent constructs, maintains, monitors conservation project
 7. Proponent submits monitoring reports for conservation project
 8. DFO-FPP reviews conservation project monitoring reports; and updates the habitat credit ledger as necessary and files monitoring reports

Phase 3: Work, Undertaking or Activity that Requires *Fisheries Act* Authorization and/or SARA Permit

9. Proponent applies for *Fisheries Act* authorization/SARA permit
10. DFO-FPP reviews the *Fisheries Act* authorization/ SARA permit application and if all requirements of the regulatory review are met, then DFO-FPP registers the habitat credit transaction on the Habitat Credit Ledger and issues *Fisheries Act* authorization/SARA permit, as appropriate.
11. The proponent can then carry out the work, undertaking or activity as per the conditions of the *Fisheries Act* authorization/SARA permit

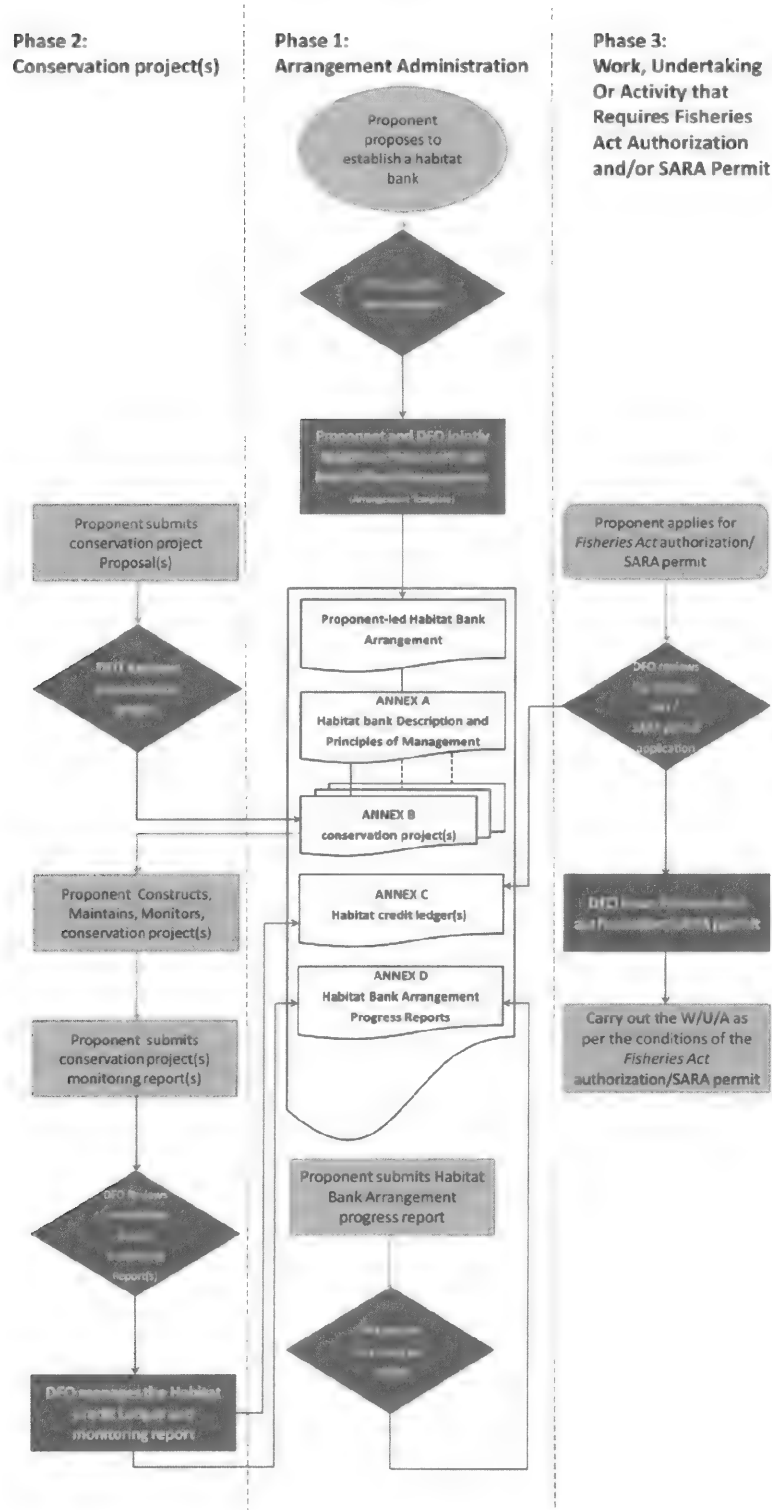


Figure 3: General overview of the proponent-led habitat banking process

8.0 Appendix 2: Proponent-led Habitat Bank Proposal Information Requirements

1. **Contact Information:** Provide the full legal name and primary mailing address for the proponent. When the proponent is a government agency, corporation or company, identify the full legal registered name of the organization?. If applicable, also provide the contact information of the duly authorized representative of the proponent.
2. **Habitat Bank Information:**
 - An explanation of why the habitat bank proposal is being pursued.
 - The general descriptions of the size and types of conservation project(s) (creation, enhancement, restoration, etc.), the fish species affected and the fish habitat benefits to be achieved by the conservation project(s), and the types of bank credits being proposed (i.e. fishery or aquatic SAR offset credits).

Habitat Bank Location

- A general description of the location of the habitat bank (i.e. watershed, drainage, lot and concessions, township, latitude and longitude) and how to access it. The description should include a maps that illustrates the following:
 - delineation of the proponent-led habitat bank service areas.
 - general location of conservation project sites within the service area (if known).
 - description on how to access the habitat bank.
 - confirmation that DFO staff have access to the site for the length of time of the arrangement in a letter signed by the landowner.

Habitat Bank Administration and Management

- Describe the general operation of the proponent-led habitat bank including:
 - conservation project proposals procedure and approval process.
 - habitat credit evaluation and approval process as it relates to the fish habitat indicators and performance targets.
 - credit accounting procedures with respect to the management of the habitat credit ledger.
- A proposed site development plan and schedule for bringing conservation projects online.
- The proposed date for the establishment of the proponent-led habitat bank.

3. Information Required for each Conservation Project Proposals within the proponent-led habitat bank:

A conservation project proposal should include a description of the following:

- Proposed conservation project;

- Fish and fish habitat (including aquatic species at risk) found at the location of the proposed conservation project site (i.e., baseline of the freshwater or marine environment);
- Predicted effects on fish and fish habitat of the proposed conservation project;
- Measures and standards to avoid or mitigate adverse effects on fish and fish habitat for the proposed habitat bank project;
- Fish habitat indicators and performance targets for the proposed conservation project;
- Monitoring, maintenance and contingency measures for the proposed conservation project;
- Habitat credits that will be established by the proposed conservation project;
- Habitat credit release schedule for the proposed conservation project ; and
- Land ownership/tenure for the proposed conservation project site.
- SAR recovery implementation actions as identified in SARA Recovery Strategies, Action Plans and Management Plans.

9.0 Appendix 3: Template Memo to Regional Director to Obtain Approval to Negotiate a Proponent-Led Habitat Bank Arrangement

20XX-XXX-XXXXX
EKME # XXXXXX
REFERRAL NUMBER#

MEMORANDUM FOR THE REGIONAL DIRECTOR

**Approval to Negotiate a Proponent-led Habitat Bank Arrangement:
[INSERT NAME OF PROPONENT-LED HABITAT BANK (INCLUDING LOCATION)]**

SUMMARY

The purpose of this memo is to seek approval to negotiate a Proponent-Led Habitat Bank Arrangement, [INSERT NAME OF PROPONENT-LED HABITAT BANK (INCLUDING LOCATION)], with [INSERT HABITAT BANK PROPONENT NAME].

DFO and proponent are participants in the following other current Proponent-led Habitat Bank Arrangements: [INSERT OTHER AGREEMENTS WITH THIS HABITAT BANK PROPONENT].

The purpose of the Proponent-led Habitat Bank Arrangement is to establish the terms and conditions for the creation and management of a proponent-led habitat bank by: establishing a working relationship between the Participants based on trust, accountability and information sharing; establishing a transparent process for managing a proponent-led habitat bank; and increasing certainty in the administration and regulation of a proponent-led habitat bank.

The Agreement will establish the following management provisions for its administration: the accountability will lie with the Office of the Regional Director, Ecosystems Management, of [INSERT NAME OF DFO REGION]; and the day to day administration of the MOU will be carried out by the Regional Fisheries Protection Program Manager or Team Leader of [INSERT NAME OF DFO REGION] Region of DFO.

[ADD ANY ADDITIONAL CONTEXT AS REQUIRED]

The Arrangement supports the Department in achieving its strategic outcome of 'sustainable aquatic ecosystems'; it is consistent with the Departmental MOU policy, the offset policy, and Guide to proponent-led habitat banks.

It is recommended that you approve the Approval to Negotiate a Proponent-Led Habitat Bank Agreement.

10.0 Appendix 4: Annotated Proponent-led Habitat Bank Arrangement

Proponent-led Habitat Bank Arrangement:
[INSERT NAME OF PROPONENT-LED HABITAT BANK (INCLUDING THE BANK LOCATION)]

Between

[INSERT HABITAT BANK PROPONENT NAME]
[The full and legal names must be listed correctly]

AND

HER MAJESTY THE QUEEN IN RIGHT OF CANADA, as represented by the Minister of Fisheries and Oceans on behalf of Fisheries and Oceans Canada (“DFO”)

[INSERT EFFECTIVE DATE] (MONTH, DD, YYYY)

PATH Number: [INSERT PATH NUMBER]

1. INTRODUCTION

This document sets out the principles of the mutual understanding between [INSERT HABITAT BANK PROPONENT NAME] and Fisheries and Oceans Canada (DFO) (hereafter referred to as “the Participants”) for the [INSERT NAME OF PROPONENT-LED HABITAT BANK].

Whereas:

- a. Fisheries and Oceans Canada (DFO) is responsible for the administration of the *Fisheries Act*, more specifically the fisheries protection provisions including Sections 6, 20, 21, 35, 37, and 38 related to the conservation and protection of Canada's marine and freshwater fisheries resources and their habitats from the impact of human activities. The purpose of the fisheries protection provisions, as set out in Section 6.1 of the *Fisheries Act*, is to provide for the sustainability and ongoing productivity of commercial, recreational and Aboriginal fisheries;
- b. DFO is responsible for the administration of the *Species at Risk Act* ("SARA") with respect to aquatic species other than those individuals in or on federal lands administered by the Parks Canada Agency and, in that capacity, the Minister of Fisheries and Oceans has powers and duties with respect to protecting aquatic species listed under that Act and providing for their recovery;
- c. The Fisheries Protection Policy Statement's goal is to promote compliance with the *Fisheries Act* in order to contribute to the purpose set out in section 6.1 of the *Fisheries Act*;
- d. This Arrangement does not commit DFO to the authorization of any future work, undertaking or activity requiring an authorization under paragraph 35(2)(b) of the *Fisheries Act*, or permit any future project requiring a permit under sections 73 and 74 of the *Species at Risk Act*. All future projects will be reviewed on their own merit and a decision on whether to authorize or permit will be made independent of the existence of a proponent-led habitat bank arrangement. This Arrangement, and any related communications between DFO and [INSERT HABITAT BANK PROPONENT NAME HERE] do not constitute a representation or commitment of any kind to [INSERT HABITAT BANK PROPONENT NAME HERE] regarding authorization of any future projects by DFO. This arrangement, and any related communications, moreover does not constitute a commitment that any habitat credits that may be issued to (Proponent) will be acceptable in the context of future applications for *Fisheries Act* authorizations or SARA permits.
- e. [INSERT OTHER RELEVANT STATEMENTS FROM THE PROPONENT]

Therefore, the Participants agree to the following arrangement (“the Arrangement”).

2. PURPOSE

To establish the principles for the creation and management of a proponent-led habitat bank by:

- establishing a working relationship between the Participants based on trust, accountability and information sharing;

- establishing a clear understandable arrangement for managing a proponent-led habitat bank; and
- increasing certainty in the administration of the proponent-led habitat bank.

3. OTHER GENERAL INFORMATION

The activities carried out under this Arrangement will be consistent with:

- *Fisheries Protection Policy Statement* (2013);
- *Fisheries Productivity Investment Policy: A Proponent's Guide to Offsetting* (2013);
- *Interim Fisheries Protection Program's Guide to Proponent-led Habitat Banking (DRAFT)* [and]
- [Provide any other relevant Offsetting guidance that may be available]

4. SCOPE

The scope of this Arrangement is limited to the establishment and administration of a proponent-led habitat bank, named above, and described in Annex A, and including conservation projects described in Annex B.

5. ROLES AND RESPONSIBILITIES

The roles and responsibilities of the [INSERT HABITAT BANK PROPONENT NAME HERE] are:

- Jointly managing the performance of the arrangement;
- Designing, constructing, monitoring, maintaining, and protecting conservation project sites;
- Meeting all other federal, territorial, provincial and municipal requirements that apply to conservation projects;
- Reporting on performance of conservation projects;
- Accurately maintaining a copy of the habitat credit ledger; and
- Preparing and submitting progress reports for the arrangement.

The roles and responsibilities of Fisheries and Oceans Canada are:

- Jointly managing the performance of the arrangement;
- Reviewing, providing advice and processing conservation project proposals;
- Reviewing conservation project progress reports, validating habitat credit balances in the habitat credit ledger, and processing habitat credit ledger transactions;
- Verifying the reported results of conservation project monitoring and progress reports;
- Including conservation project sites on their Regional Strategic Monitoring Plan and when appropriate carry-out direct monitoring (i.e., a site visit to gather and analyse samples or information in order to directly verify compliance and effectiveness) and/or indirect monitoring (i.e., an assessment of information provided in performance reports to verify compliance and effectiveness) to verify that the implementation of the Conservation Projects is following the established process and producing the desired results;

- Managing the arrangement following departmental policies, and track arrangement activity in the PATH following Data Entry Protocol; and
- Reviewing and processing progress reports of the arrangement;

The participants shall fulfill their responsibilities under this Arrangement in accordance with the provisions of federal, provincial and territorial laws and regulations that govern their activities. Should a participant not be able to perform a function under this Arrangement, the affected participant will immediately contact the other signatories of this Arrangement so that early resolution can be reached.

6. MANAGEMENT PROVISIONS

This Arrangement establishes the following management provisions for the administration of the arrangement:

- The accountability lies with the office of signatories of the Arrangement, [INSERT HABITAT BANK PROPONENT ACCOUNTABLE OFFICE HERE] and Regional Director, Ecosystems Management, of [INSERT NAME OF DFO REGION HERE].
- The day to day administration of the Arrangement will be carried out by: [INSERT HABITAT BANK PROPONENT ACCOUNTABLE OFFICE HERE] (e.g. Project Manager); and Regional Fisheries Protection Program Manager/Team Leader of [INSERT NAME OF DFO REGION HERE] Region of DFO.

7. ADMINISTRATION OF THE PROPONENT-LED HABITAT BANK ARRANGEMENT

- Specific details related to the principles of the administration and operation of the habitat bank are included in ANNEX A;
- Details related to the conservation projects:
 - the conservation project proposals, principles of operation and maintenance, and approvals for the the conservation projects are included in ANNEX B;
 - the credit ledger is attached in ANNEX C; and
 - the conservation project performance reports is attached in ANNEX D.

8. SHARING OF INFORMATION

While this Arrangement is in effect and at all times thereafter, each of DFO and [NAME OF HABITAT BANK PROPONENT HERE] and any officers, employees or agents of each of them shall treat all information, data, documents, reports and materials acquired or to which access have been given in the course of, or incidental to, the performance of this Arrangement as confidential, subject to the federal *Access to Information Act* and the *Privacy Act*. The Participants shall not disclose or permit to be disclosed such information, data, documents, reports and materials, unless:

- a. the participants agree to the disclosure
- b. the disclosure is required by law;
- c. the information was obtained from the public; or
- d. the information is available to the public.

9. DIFFERENCES IN INTERPRETATION AND APPLICATION

The Participants will endeavor to resolve issues regarding the implementation of this Arrangement in a timely manner using mechanisms available to the Participants. Where an issue remains unresolved, the pre-eminent jurisdiction responsible for the matter under consideration will make the final determination and seek concurrence from **[INSERT HABITAT BANK PROPONENT ACCOUNTABLE OFFICE HERE]** and Regional Director, Ecosystems Management, of **[INSERT NAME OF DFO REGION HERE]**.

10. PROGRESS REPORT

The **[NAME OF HABITAT BANK PROPONENT HERE]** will prepare a Progress Report (i.e., Annex D) on the achievements and challenges encountered during the reporting period of this Arrangement as it relates to the Purpose. The Progress Report should also include a summary of:

- The conservation projects undertaken, the status of the projects (i.e. started, under construction or monitoring, etc.), the performance of the conservation projects to date, and any related complete monitoring reports.
- A summary of the habitat credit ledger as well as an accounting of all the transaction for the year.

The Progress Report should be submitted within 90 calendar days from the conclusion of each year. A year will be considered to run from April 1 to March 31.

The Progress Report will be submitted to the Office of signatories of the Arrangement, **[INSERT HABITAT BANK PROPONENT ACCOUNTABLE OFFICE HERE]** and Regional Director, Ecosystems Management, of **[INSERT NAME OF DFO REGION HERE]** for their concurrence.

All progress reports will be appended to this Arrangement in ANNEX D.

11. REVIEW

After the first **[INSERT THE NUMBER OF YEARS FOR THE REVIEW PERIOD]** -year term that this Arrangement is in effect and every **[INSERT THE NUMBER OF YEARS FOR THE REVIEW PERIOD]** -year term after that, the Regional Director, Ecosystems Management, of **[INSERT NAME OF DFO REGION HERE]** Region of DFO **may** establish a review team consisting of **[INSERT HABITAT BANK PROPONENT ACCOUNTABLE OFFICE HERE]** and Regional Fisheries Protection Program Manager/Team Leader of **[INSERT NAME OF DFO REGION HERE]** Region of DFO or appropriately qualified third

party to review the effectiveness of activities under this Arrangement. This review team will report to the Regional Director, Ecosystems Management, of [INSERT NAME OF DFO REGION HERE] within six months of being established.

12. AMENDMENT

The Arrangement may be amended at any time in writing and by mutual consent of the Participants. An amendment will be confirmed by an exchange of letters, signed by the Participants, setting out the amendment and its effective date.

13. FINANCIAL ARRANGEMENT

This Arrangement will not impose any additional financial responsibilities on its participants, except that each participant will be responsible for the staff and funding costs it incurs in its own interests, related to the support of the Arrangement.

14. DURATION, WITHDRAWAL AND TERMINATION

The Arrangement will expire after the first [INSERT THE NUMBER OF YEARS FOR THE REVIEW PERIOD] -year term that this Arrangement is in effect and every [INSERT THE NUMBER OF YEARS FOR THE REVIEW PERIOD] -year term after that after the date that the Arrangement comes into effect. [NAME OF HABITAT BANK PROPONENT HERE] can request a renewal of the Arrangement for an additional defined term by providing one year's written notice to the other Participant. Any Participant may terminate this Arrangement by providing one year's written notice to the other participants.

15. LEGAL DISCLAIMER

This Arrangement is an expression of the mutual intentions of the Participants and is not legally binding on them or enforceable against them.

16. CONTACTS

[FULL NAMES AND POSITION OF THE CONTACT PERSONS OF THE PARTICIPANTS]

EFFECTIVE DATE AND SIGNATURE

This Arrangement has been signed by the Regional Director of [INSERT NAME OF DFO REGION] Region of Fisheries and Oceans on behalf of Her Majesty the Queen in Right of Canada and by the [NAME OF HABITAT BANK PROPONENT] on the dates noted below.

SIGNED IN THE PRESENCE OF: FOR HER MAJESTY THE QUEEN IN RIGHT OF CANADA

**Regional Director,
Ecosystems Management,
of [INSERT NAME OF DFO REGION HERE]
of Fisheries and Oceans Canada**

Witness

[INSERT NAME]_____
**Regional Director,
Ecosystems Management,
of [INSERT NAME OF DFO REGION HERE]
of Fisheries and Oceans Canada**

[INSERT DATE]_____
Date

FOR Habitat Bank Proponent [NAME OF HABITAT BANK PROPONENT]

President of [NAME OF HABITAT BANK PROPONENT] **Witness**

[INSERT NAME]_____
President of [NAME OF HABITAT BANK PROPONENT]

[INSERT DATE]_____
Date

This Agreement comes into effect on the date noted above.

ANNEX A: HABITAT BANK DESCRIPTION AND THE PRINCIPLES FOR THE MANAGEMENT OF [INSERT NAME OF PROPONENT-LED HABITAT BANK]	
Information Required	Description
Habitat Bank Location	<p>Provide a description of where the habitat bank is located and will operate as well as a description on how to access the site. The description should include a map that illustrate the following:</p> <ol style="list-style-type: none"> Delineation of the proponent-led habitat bank service areas. General location of conservation project sites within the service area (if known). Letter signed by the landowner confirming access to the site by DFO staff for the length of the arrangement.
Habitat Bank Administration	<p>Describe the general operation of the proponent-led habitat bank including:</p> <ul style="list-style-type: none"> Conservation project proposal procedure and approval process. Habitat credit evaluation and approval process as it relates to the fish habitat indicators and performance targets. Credit accounting procedures with respect to the management of the habitat credit ledger. Insert other relevant statements related to the administration of the habitat bank
Bank Establishment Date	Provide the effective date of the bank

ANNEX B: CONSERVATION PROJECT PLAN	
Information Required	Description of the Information
Proposed Conservation Project	<ul style="list-style-type: none"> • Describe the proposed Conservation Project, the associated infrastructure, any permanent or temporary structure involved and the construction methodologies, building materials including physical and biological components, explosives, machinery and other equipment that will be used. • Provide the conservation project engineering specifications, scale drawings and dimensional drawings. • Describe the anticipated phases, including the sequencing of the phases, of the proposed conservation project. • Describe the location of the proposed conservation project, including: <ol style="list-style-type: none"> a) geographic coordinates; b) a small-scale site plan identifying the overall location and boundaries; c) a large-scale site plan indicating the size and spatial relationship of the planned facilities, infrastructure and other components and of any existing structures, landmarks, water sources or water bodies and other geographic features; and d) the name of any watersheds, water sources and water bodies that are likely to be affected and the geographic coordinates of the water sources and water bodies. • The name of the community nearest to the location and the name of the county, district or region and the province in which the proposed conservation project will be carried out. Include a map showing the general location of conservation project sites within the service area of the proponent-led habitat bank.
Fish and Fish Habitat Found at the Location of the Proposed Conservation Project (Baseline of the Freshwater or Marine Environment)	<ul style="list-style-type: none"> • Describe the fish and fish habitat found at the location of the proposed conservation project site and within the area likely to be affected by the proposed conservation project, including: <ol style="list-style-type: none"> a) the type of water source or water body; b) the characteristics of the water source or water body and how those characteristics directly or indirectly support fish in carrying out their life processes; c) the fish species that are present and an estimate of the abundance of those species; and d) a description of how the information provided under paragraphs (a) to (c) was derived, including the sources, methodologies and

	sampling techniques used.
Predicted Effects on Fish and Fish Habitat at the Proposed Conservation Project Site	<ul style="list-style-type: none"> Quantitatively describe the likely effects (i.e., beneficial and adverse) on fish and fish habitat at the proposed Conservation project site. The description must include the following information: <ol style="list-style-type: none"> the fish species, the aquatic species at risk that are likely to be affected and the life stages of the individuals of those species; the extent and type of fish habitat that is likely to be affected; the probability, spatial scale, duration and intensity of the likely effects on fish and fish habitat; and a description of how the information provided under paragraphs (a) to (c) was derived, including the methodologies used. Provide an analysis of whether the adverse effects on fish and fish habitat referred to above may be likely to result in a contravention of the <i>Fisheries Act</i> or <i>Species at Risk Act</i>.
Measures and Standards to Avoid or Mitigate Adverse Effects on Fish and Fish Habitat for the Proposed Conservation Project	<ul style="list-style-type: none"> Describe the measures and standards that will be implemented to avoid or mitigate the adverse effects on fish and fish as a result of the proposed conservation project, including an analysis of the expected effectiveness of those measures and standards to avoid or mitigate the adverse effects on fish and fish. Describe the monitoring measures that will be put in place to assess the effectiveness of the measures and standards to avoid and mitigate the adverse effects on fish and fish habitat referred to above. Describe the contingency measures that will be implemented if the measures and standards to avoid and mitigate the adverse effects on fish and fish habitat referred to above are not successful in avoiding or mitigating the adverse effects on fish and fish habitat of the conservation project.
Fisheries Benefits of the Proposed Conservation Project	<ul style="list-style-type: none"> Describe the structure and function of the fish habitat that will result from the habitat creation, restoration or enhancement measures that will be implemented (e.g., in terms of physical, chemical and biological characteristics). Describe the fish habitat indicators, and the performance target for each fish habitat indicator.
Monitoring, Maintenance and Contingency Measures for the Proposed Conservation Project	<ul style="list-style-type: none"> Describe the monitoring measures that will be put in place to assess the effectiveness of the conservation project in terms of the fish habitat fisheries benefits stated above. This should include the sampling methodology, data sources and, monitoring frequency of the fish habitat indicators. Describe the maintenance measures that will be implemented to ensure the conservation project is achieving the fisheries benefits (i.e.,

	<p>performance targets for fish habitat indicators) over the long-term.</p> <ul style="list-style-type: none"> • Describe the contingency measures and associated monitoring measures that will be put into place if the conservation project is not successful in achieving the performance targets for fish habitat indicators. • Describe the monitoring schedule for the above and the reporting schedule for the monitoring outputs. • Describe the habitat bank closure plan for when the bank is complete (i.e., all construction phases and monitoring is complete, and all earned credits have been allocated) that ensures the conservation project continues to achieve the fisheries benefits over the long-term.
Habitat credits that Will be Established by the Proposed Conservation Project	<ul style="list-style-type: none"> • Provide a general description of the habitat credits that will be generated by the proponent-led habitat bank conservation project in terms of a unit of measure (e.g., m² or hectare); the general ecological structure and function; and how it will support the fish community, SAR or both to carry out their life processes. • Describe the types of adverse effects on fish and fish habitat that those habitat credits is designed to offset. • Identify the maximum number of habitat credits the conservation project could generate (e.g., the extent in square metres).
Habitat credit Release Schedule for the Proposed Conservation Project	<ul style="list-style-type: none"> • Describe how habitat credits will be evaluated and the release schedule in terms of the fish habitat indicators and performance targets. If a phased approach to credit release is proposed, details of the fish habitat indicators and performance targets for each phase of the Conservation project should be included.
Land Ownership/Tenure for the Proposed Conservation Project	<ul style="list-style-type: none"> • Describe the land ownership/tenure status of the lands, water sources or water bodies that are necessary for the implementation of the conservation project. The description may also include the steps that are proposed to be taken to obtain the permission/approval/permit required for the Habitat Bank Proponent, Fisheries and Oceans Canada, and anyone authorized to act on the Department's behalf to access the lands, water sources or water bodies in question. • List any permits and approvals, specific to land tenure/ownership necessary to implement the conservation project.

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Annex D:

ARRANGEMENT PROGRESS REPORTS AND CONSERVATION PROJECT PERFORMANCE REPORTS

PROPONENT-LED HABITAT BANK ARRANGEMENT PROGRESS REPORT

NAME OF THE PROPONENT-LED HABITAT BANK ARRANGEMENT: [INSERT NAME OF PROPONENT-LED HABITAT BANK (INCLUDING THE BANK LOCATION)]

BACKGROUND

To establish the terms and conditions for the creation and management of a proponent-led habitat bank by: establishing a working relationship between the Participants based on trust, accountability and information sharing; establishing a transparent process for managing a proponent-led habitat bank; increasing certainty in the administration of a proponent-led habitat bank. The Agreement came into effect on [INSERT EFFECTIVE DATE]

Covered Period from : April 1, [INSERT THE YEAR OF THE BEGINNING OF REPORTING PERIOD]

To : March 31, [INSERT THE YEAR OF THE END OF REPORTING PERIOD]

ACHIEVEMENTS

1. [DESCRIBE THE ACHIEVEMENTS AND CHALLENGES ENCOUNTERED DURING THE REPORTING PERIOD OF THIS ARRANGEMENT AS THEY RELATE TO THE PURPOSE STATEMENT OUTLINED IN SECTION 2.]
2. [DESCRIBE PROGRESS/ACTIVITIES STARTED/COMPLETED IN THE LAST YEAR]
 - a. [SUMMARIZE THE CONSERVATION PROJECTS UNDERTAKEN, THE STATUS OF THE PROJECTS (I.E. STARTED, UNDER CONSTRUCTION OR MONITORING, ETC.), THEIR PERFORMANCE TO DATE];
 - b. [SUMMARY OF THE HABITAT CREDIT LEDGER AS WELL AS AN ACCOUNTING OF ALL THE TRANSACTION FOR THE YEAR]
3. [PROVIDE A BRIEF DISCUSSION OF THE OBSTACLES THAT WERE MET OVER THE COURSE OF THE YEAR, THE PROGRESS TO BE ACHIEVED OVER THE NEXT YEAR, AND REMEDIAL MEASURES TO BE TAKEN (IF APPLICABLE)]
4. [DISCUSS NEXT STEP FOR THE NEXT YEAR]

CONCLUSION

[AN ASSESSMENT OF THE ACHIEVEMENTS TO DATE AND THE RELEVANCE OF THE ARRANGEMENT]

This report has been reviewed and approved by:

**Regional Director,
Ecosystems Management,
of [Region] of
Fisheries and Oceans Canada**

And

President of [Habitat Bank Proponent]

WORKING AGREEMENT

Concerning

**PROCEDURES FOR DEVELOPMENT AND OPERATION OF THE
PORT METRO VANCOUVER
HABITAT BANK**

Between

VANCOUVER FRASER PORT AUTHORITY

And

FISHERIES AND OCEANS CANADA

July 31, 2012

**WORKING AGREEMENT
Concerning
PROCEDURES FOR DEVELOPMENT AND OPERATION OF THE
PORT METRO VANCOUVER
HABITAT BANK**

BETWEEN:

VANCOUVER FRASER PORT AUTHORITY, a corporation established pursuant to the *Canada Marine Act* having its place of business at 100 The Pointe, 999 Canada Place, Vancouver, British Columbia, V6C 3T4 (herein referred to as the "Authority")

of the FIRST PART

AND:

FISHERIES AND OCEANS CANADA, Represented by the Regional Director, Ecosystem Management Branch, Fisheries and Oceans Canada, Pacific Region (herein referred to as "DFO")

of the SECOND PART

WHEREAS:

- A. The VFPA is responsible for the use, management and development of its land, buildings and property within its jurisdiction, including Vancouver Harbour, Roberts Bank, Sturgeon Bank and the Fraser River, in a manner that ensures the integrity and environmental protection thereof;
- B. The VFPA conducts environmental assessments and project review and permitting pursuant to the *Canadian Environmental Assessment Act*, S.C. 1992, c. 37 and regulations, the VFPA *Project Review Process Directive*, and the VFPA *Environment Policy*;
- C. The DFO is responsible, pursuant to the *Fisheries Act*, R.S.C. 1985, c. F-14 (the "Fisheries Act"), for the protection of fish and fish habitat, which are essential for the maintenance of sustainable British Columbia and Canadian commercial, recreational and aboriginal fisheries;
- D. VFPA and DFO agree that there is mutual benefit to be realized in the development of a habitat bank that permits the creation and restoration of fish habitat on VFPA land with demonstrable productive value (the "DFO Benefit") in a planned and deliberate manner whilst

allowing for increased certainty in habitat offsetting in the development of VFPA land (the "VFPA Benefit");

- E. This Working Agreement sets forth the Parties' commitments to develop the Habitat Bank, whereby habitat may be withdrawn from the Habitat Bank agreed to by the Parties and describes the process whereby the Parties will identify potential fish habitat development projects.

NOW THEREFORE the Authority and the DFO covenant and agree as follows:

1. INTRODUCTION

- 1.1 The Parties have a shared interest in the protection of fish habitat and the sustainability of fisheries in the Fraser River and surrounding areas. To that end the Parties have agreed, through the Fraser River Framework, to work towards maintaining and, where practical, improving the productivity of fish and wildlife habitats through the development of the Habitat Bank. The Habitat Bank is intended to create and improve fish habitat in Burrard Inlet, Roberts Bank, Sturgeon Bank and the Fraser River and its estuary. It is intended to credit the fish habitat creation against future VFPA or waterfront development projects requiring habitat compensation. The establishment of the Habitat Bank is considered beneficial because viable and productive habitat is created in advance of projects that will result in habitat losses.
- 1.2 The Habitat Bank also offers the advantage of being able to create larger habitat areas rather than several smaller, non-contiguous sites that may yield fewer ecological benefits and be more expensive to construct.
- 1.3 The VFPA, working in consultation with the DFO, and taking into consideration consultation input from other agencies, First Nations and local communities has initiated an on-going process of identifying and selecting potential habitat banking sites for the Habitat Bank. Actual sites targeted for creation or enhancement by VFPA or third parties will be developed by agreement of the Parties.
- 1.4 Sites for the Habitat Bank will be selected based on the following considerations and criteria:
 - a) **Need:** Locations characterized by low productive capacity for species and stocks of interest or species at risk will be considered as a priority for the Habitat Bank. The intent is to develop or improve habitat capacity in geographic service areas where habitat is needed and in support of applicable DFO policies.
 - b) **Habitat Productivity:** Emphasis will be placed on creation of high value habitat types that support a large number of ecological services and species functions (e.g. eelgrass beds and low marshes). The value of productivity will be assessed in the context of need

(consideration "a" above).

- c) **Site location:** Sites for the Habitat Bank will be selected based on their proximity to potential development areas with significant or rare ecological habitats or where onsite habitat compensation opportunities may be limited.
- d) **Feasibility and cost:** Coastal zone processes, river hydraulics, biological productivity and ecological functioning are amongst the factors that will be used to determine the feasibility of habitat creation. In some areas it may not be possible to achieve stable self functioning habitat due to ongoing influences of physical processes. Further some habitat creation options may be possible but only at extreme high cost. Consideration may be given if these habitat types are critical for endangered or threatened species and the habitat credit applied to the Habitat Bank recognizes the increased cost of development.
- e) **Ownership and Tenure:** VFPA shall, either through ownership, lease, licence or agreement, ensure that the tenure for the Sites for the Habitat Bank will be for the long-term beyond the life of the project that resulted in the habitat loss.

2. DESCRIPTION OF HABITAT BANKING SITES

- 2.1 VFPA continues to identify potential habitat development sites in consultation with DFO, the Canadian Wildlife Service and other appropriate parties. Potential sites for inclusion in the Habitat Bank are situated geographically over the Lower Fraser River Estuary, Burrard Inlet and southern Georgia Strait. The identification of potential sites has no other weight or meaning in the context of this Working Agreement, and in particular is intended to suggest but not mandate priority with respect to habitat creation or enhancement.
- 2.2 VFPA will select priority habitat banking sites in consultation and negotiation with DFO. The considerations set out in this Working Agreement will be the basis for proceeding to conceptual design, for determining feasibility, habitat ratios and relative habitat values to be used, for applying compensation credits to geographic service areas and for identifying any site specific characteristics to be addressed in detailed design.
- 2.3 Nothing in this Working Agreement will preclude the Parties to the Memorandum from placing Sites developed by third parties into the Habitat Bank. Once accepted into the Habitat Bank, such habitat will be treated in the same manner as other habitat that has been placed into the Habitat Bank.

3. GENERAL GUIDELINES FOR OPERATION OF THE HABITAT BANK

- 3.1 Habitat creation or enhancement projects will undergo all appropriate reviews and assessments that may apply, including those mandated by applicable

environmental assessment legislation and VFPA-mandated reviews and assessments. These reviews and assessments will include referral to the Burrard Inlet Environmental Action Program and Fraser River Estuary Management Program Coordinated Environmental Review processes, with all appropriate supporting information and documentation.

- 3.2 Each habitat development Site will be subject to pre-construction, construction and post-construction monitoring as stipulated in the conditions for mitigating adverse environmental effects arising out of the reviews referenced in Section 3.1 above. The Parties may agree that additional monitoring may be warranted for some projects. A reason for such additional monitoring might be to establish and track the overall habitat value of the Habitat Bank, in the form of a balance sheet or other form agreed to by the Parties. Responsibility for, and implementation of, such additional monitoring will be determined as part of such agreement.
- 3.3 A principle underlying Section 3.2 is that the actual productive value of a particular habitat parcel will need to be determined immediately prior to its application as credit for a development project to address the nature of the habitat loss associated with that project, but not necessarily sooner.
- 3.4 The process for determining the productive value of the habitat will be circumstantial, site specific and mutually agreed to by the Parties but will likely follow these general principles:
 - a) Habitat parcels will be targeted for withdrawal from the Habitat Bank in consultation with and agreement by DFO;
 - b) Habitat parcels targeted for withdrawal will be at least nominally fully functioning habitat, but their functionality will need to be confirmed through quantitative monitoring that identifies their existing biophysical characteristics to the satisfaction of DFO;
 - c) The selected parcels will subsequently monitored for at least a year and possibly multiple years to confirm their viability, at the discretion of DFO;
 - d) This subsequent confirmatory monitoring may be done concurrently with the activity expected to result in the habitat loss;
 - e) Monitoring reports will be submitted as stipulated by DFO;
 - f) Habitat in the Habitat Bank will be confirmed as a successful or viable habitat credit if the physical works are stable and target vegetation or biological features have been established; and
 - g) Site specific conditions may justify that DFO, in consultation with VFPA, evaluate different performance criteria on a case by case basis.

- 3.5 VFPA will apply for approval to DFO to use the Habitat Bank credits to offset VFPA development projects. VFPA is aware that the use of the Habitat Bank is subject to the following conditions:**
- a) The existence of the Habitat Bank does not guarantee that DFO will issue an Authorization pursuant to the Fisheries Act for any proposed VFPA development.**
 - b) The Habitat Bank cannot be used to compensate or offset for a habitat impact as a result of a VFPA project unless DFO expressly authorizes VFPA to do so pursuant to the Fisheries Act.**
 - c) The Habitat Bank does not constitute in any time an authorization to modify a fish habitat pursuant to the Fisheries Act.**
 - d) DFO's decision to issue an Authorization pursuant to the Fisheries Act may be made without taking into account the existence of a Habitat Bank and opportunities to avoid or to mitigate loss of fish habitat for future VFPA projects will be considered before approving the use of the Habitat Bank.**
 - e) The determination of the actual value of the Habitat Bank and its use as compensation for an eventual loss of fish habitat remains the prerogative of DFO.**
 - f) For any proposed VFPA development project, all on-site compensation options shall be fully assessed and implemented before VFPA can apply to DFO to use habitat credits from the Habitat Bank**
 - g) DFO reserves the right to at anytime, before any aspect of the Habitat Bank be used as potential compensation for a future VFPA project, require an assessment of the Habitat Bank to be carried out before or after the period initially envisaged within the monitoring program.**
- 3.6 The VFPA will conduct annual inspections of the Habitat Bank for the duration of this Working Agreement after the prescribed monitoring periods for each habitat creation project for general assurance that the habitat remains viable and secure. Where indications exist that this is not the case, the parties will mutually agree to a course of action that restores levels of habitat compensation appropriate to the habitat loss the creation project was applied to.**
- 3.7 Any required remedial action will be undertaken by VFPA to maintain the value of the habitat credits. This could include physical (e.g., shoreline protection or site stabilization) or biological (e.g., additional planting) works.**
- 3.8 VFPA will have the right to sell sites within the Habitat Bank to third parties to allow the third party to credit the habitat creation against its waterfront development projects requiring habitat compensation.**

- 3.9 This Working Agreement will remain in effect for a five (5) year trial period after which it may be extended indefinitely if it is mutually agreeable to both Parties. This Working Agreement may be amended by mutual consent and written agreement between the Parties.
- 3.10 Nothing in this Working Agreement is intended to replace, abrogate or derogate from any of the rights, powers, authorities or jurisdiction of either Party.

4.0 ADMINISTRATION OF THE PORT METRO VANCOUVER HABITAT BANK

- 4.1 The VFPA will be responsible for the administration of the Habitat Bank. Administration will include maintaining a general ledger of all habitat transactions and producing an annual habitat balance sheet for review by DFO in December of any given year of this Working Agreement.
- 4.2 The VFPA will provide monitoring reports to DFO as stipulated in this Working Agreement. Once the stipulated monitoring provisions have been fulfilled, VFPA will maintain habitat surveillance for general assurance that the sites in the Habitat Bank sites remain functional, as stipulated in section 3.6 above.
- 4.3 DFO will provide technical direction and assistance and policy advice to the VFPA when required.
- 4.4 VFPA will review the administration of the Habitat Bank on an annual basis with the goal of improving the habitat banking process and reviewing it for new and emerging opportunities.

5.0 GENERAL

- 5.1 Each party shall bear all of the costs and expenses entailed in, arising out of or in any way connected with the performance of its activities contemplated in this Working Agreement.
- 5.2 Neither party may transfer or assign any of its rights or obligations under this Working Agreement, or any interest therein, without the prior written consent of the other party.
- 5.3 Nothing contained in this Working Agreement shall be construed to create any joint venture or partnership, whether statutory or otherwise, and the rights and obligations of the parties shall be limited to those expressly recited herein.

5.4 This Working Agreement constitutes the entire agreement of the parties hereto with reference to the subject matter hereof. It supersedes all related prior agreements and understandings, written or oral, express or implied relating to such subject matter.

IN WITNESS WHEREOF the Parties hereto execute the Working Agreement

the 10 DAY OF SEPTEMBER, 2012

Signed on behalf of the
**VANCOUVER FRASER PORT
AUTHORITY** And in the
presence of:

[Signature]
Witness (signature)

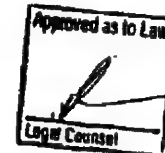
Nancy Readman
Name (print)

[Signature]
Witness (signature)

Lee Ann Ryan
Name (print)

[Signature]
Robin Silvester
President & CEO

[Signature]
J. Dean Readman
Director, Legal Services &
Corporate Secretary



Signed on behalf of the
**DEPARTMENT OF FISHERIES
AND OCEANS** and in the
presence of:

[Signature]
Witness (signature)

VANESSA HODGKINS
Name (print)

[Signature]
Bonnie Antcliffe
Regional Director
Ecosystem Management Branch
Pacific Region

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From: Nutton, Byron
To: Magnan, Alain
Subject: RE: INFORMAL: Port of Vancouver - Habitat banking
Date: 2018-March-02 9:04:31 AM
Attachments: Briefing Memo - Credit Withdrawal from Habitat Banks.pdf

Hey Al,

Loriena, Suzanne and I are meeting with them, face to face, here at PBS on Wednesday (March 7) to discuss their most recent proposed drafts of the Arrangement and Indigenous engagement plan.

The particular issues we are working towards resolution on are:

- Adequacy of the Indigenous engagement plan
- Service area for the Arrangement
- At what point are the credits available for use – immediately upon construction in anticipation of habitat becoming fully functional, or after an initial monitoring period to verify full functionality

Regarding bullet 3, please see attached information they submitted directly to Director General for consideration. You will note that they are proposing the ability to use credits prior to being confirmed, with the provision of including outstanding monitoring requirements in the associated Fisheries Act Authorization. You will recall that we have previously discuss this issue, and have not been in favour with this approach.

If you need anything else at this time please let me know, otherwise I should be able to provide something with a bit more detail after the meeting next week.

Cheers,

Byron

From: Magnan, Alain
Sent: 2018-March-02 8:33 AM
To: Nutton, Byron
Subject: Fw: INFORMAL: Port of Vancouver - Habitat banking

Byron,

Any updates.

Al

Sent from my BlackBerry 10 smartphone on the Rogers network.

From: Webb, Cheryl <Cheryl.Webb@dfo-mpo.gc.ca>
Sent: Friday, March 2, 2018 8:29 AM

To: Magnan, Alain
Subject: FW: INFORMAL: Port of Vancouver - Habitat banking

Can I get an update Al.

Thanks, Cheryl

From: Kaba, Kyle
Sent: Friday, March 2, 2018 8:27 AM
To: Webb, Cheryl <Cheryl.Webb@dfo-mpo.gc.ca>
Cc: Fogliato, Cara <Cara.Fogliato@dfo-mpo.gc.ca>
Subject: RE: INFORMAL: Port of Vancouver - Habitat banking

Hi Cheryl – MINO is asking for an update on the status of negotiations related to the Port of Vancouver habitat banking agreement. Is there any information we can share?

Thanks
Kyle

From: Trudeau, Miriam
Sent: 2018-March-01 9:09 AM
To: Kaba, Kyle; Richter, Julie
Cc: Butcher, Ashley; Malko, Carol; Jarjour, Jasmine; Marroquin, René; Trudeau, Miriam; Villeneuve, Anne-Marie
Subject: INFORMAL: Port of Vancouver - Habitat banking

Kyle/Julie, let me know who is the lucky winner?

MINO is asking if they can get an update about the status of negotiations relating to the Port of Vancouver habitat banking agreement?

Miriam

Miriam Trudeau
Director, Departmental Liaison
Directrice, Liaison ministériel

Fisheries and Oceans Canada | Pêches et Océans Canada
200 Kent Street | 200, rue Kent | 1S1N114
Ottawa, Canada K1A 0E6
(613) 947-4557 | miriam.trudeau@dfo-mpo.gc.ca

DATE: January 15, 2018

TO: Nicholas Winfield, Director General, Ecosystems Management, DFO

FROM: Gord Ruffo, Charlotte Olson

SUBJECT: Habitat Enhancement Program
Credit Withdrawal from Habitat Banks

Background

VFPA's Habitat Enhancement Program (HEP) is proactively creating and enhancing habitat that increases productivity to CRA fisheries for inclusion in its habitat bank. This approach provides VFPA with the opportunity to balance future infrastructure development with a healthy environment as banked fish habitat is withdrawn to offset infrastructure projects that result in serious harm to fish.

VFPA operates Canada's largest active habitat bank and VFPA has allocated significant funding, resources and scientific expertise to identify and create large habitat sites. Aboriginal engagement and collaboration are also key components of the development of habitat projects, with economic opportunities being provided to Aboriginal groups as part of project delivery.

DFO has identified that habitat banks are one of two offsetting measures available to proponents that have offsetting requirements with the key benefits of habitat banks being:

- **Less uncertainty** related to the effectiveness of the offsetting measures or the time required for the offsetting measures to become functional
- **Reduction in time and resources** required to issue *Fisheries Act* Authorizations, because the value of the credits within the habitat bank is known and the development of the offsetting plan is simplified

In order to realize these benefits, proponents of habitat banks must have the ability to use the deposited credits when offsetting is required. VFPA's habitat bank is a long-term initiative with habitat sites being constructed well ahead of any planned infrastructure project that may use require offsets. When an infrastructure project is identified and requires offsetting, effective withdrawal processes are required.

The process for the withdrawal of credits is identified in DFO's policy and guidelines for habitat banks and requires that habitat sites, and their associated credits, are "functional" as a pre-condition of withdrawal. The interpretation and evaluation of a site's "function", as it relates to fisheries productivity, is a critical consideration to ensure that offsetting with habitat banks is supported by DFO policy. Recent information from DFO indicates that habitat sites deposited within a habitat bank must be "fully functional" (i.e. demonstrated to be meeting or surpassing Performance Targets) before they can be considered for offsetting. This interpretation is the topic of this Briefing Memo.

Discussion Topic

The withdrawal of credits from a habitat bank involves a comprehensive evaluation of the constructed site to determine its contribution to fisheries productivity. This evaluation is

accomplished using a performance-based approach utilizing fish habitat indicators to demonstrate that the habitat project provides fisheries benefits to CRA fisheries.

As VFPA is constructing habitat projects for its habitat bank well ahead of any planned infrastructure projects that may require offsetting, the timing of future proposed withdrawals of credits is unknown. With habitat projects typically requiring 8-10 years to design, construct and develop to full function, ensuring that appropriate credits are available for use can prove to be challenging which creates a limiting factor for habitat banks.

To reduce this limiting factor and to support the viability of habitat banks, consideration for accommodating the use of "nominally functional" sites (i.e. sites having partially met the established Performance Targets) for offsetting should be made with evaluation of full function being deferred for several years. Use of "nominally functional" sites are anticipated to achieve the key benefits of habitat banks as shown below.

- | | |
|--|---|
| <ul style="list-style-type: none">✓ Less Uncertainty | <ul style="list-style-type: none">✓ 100% detailed design✓ Construction of site complete✓ Post-construction monitoring of site is in-progress✓ Performance-based results obtained using fish habitat indicators demonstrate that the site is nominally functional✓ Established formal reporting structure through VFPA's Annual Report to DFO that would ensure monitoring results are communicated to DFO |
| <ul style="list-style-type: none">✓ Reduction in Time and Resources | <ul style="list-style-type: none">✓ Detailed post-construction monitoring reports are available for DFO review✓ VFPA's established team of professionals are available to respond to DFO requests for additional information✓ Future monitoring reports are submitted annually in accordance with the terms of VFPA's agreement with DFO for habitat banking |

It should be noted that VFPA's current Working Agreement with DFO for its habitat bank provides for the use of nominally functional sites with a requirement for at least one year of additional monitoring of the site.

Example Withdrawal of Credits

To demonstrate how "nominally functional" habitat credits could be withdrawn from a habitat bank for offsetting purposes, an Example Withdrawal has been provided in Attachment 1. This example profiles VFPA's *New Brighton Park Shoreline Restoration Project* which was completed in 2017 and is now being monitored to determine if the Performance Target for the site is being achieved. A comparison is provided in this example for two different withdrawal years as follows:

- **Withdrawal Year 2019** when the habitat site is projected to be "nominally functional"
- **Withdrawal Year 2021** when the habitat site is projected to be "fully functional"

Examples of potential risks to the habitat site and to resulting fisheries benefits that could occur in the two year period between 2019 and 2021 have also been identified as well as adaptive management strategies that could be applied should the risk occur.

Summary of Proposed Policy Approach for Consideration

The benefits of offsetting through the use of habitat credits from an established habitat bank are significant and can be an effective tool for offsetting. To ensure that habitat banks remain a viable option for offsetting, DFO policy that is used to administer habitat banks must support the use of these habitat credits.

Habitat credits that are "nominally functional" can achieve the key benefits of offsetting through habitat banks. Consideration should be made to:

1. Permit proponents to propose the use (withdrawal) of "nominally functional" habitat projects from their habitat bank, based on their value at full function, in offsetting plans included in applications for Fisheries Act Authorizations
2. Require proposals for use of nominally functional habitat projects to include:
 - A detailed assessment of potential risks that could prevent the credits from achieving "full function"
 - An adaptive management strategy that would be implemented in the event that habitat site does not achieve full function
3. Include a provision in the Fisheries Act Authorization for the infrastructure project for additional monitoring of the habitat site until full function is achieved
4. Identify proponent's responsibility for ensuring habitat reaches full function in both the Fisheries Act Authorization and the proponent's agreement on habitat banking

Attachment 1

Example Withdrawal of Credits

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Example Withdrawal of Credits

Overview of Example Project

VFPA's *New Brighton Park Shoreline Restoration Project (NBP Project)* was constructed in collaboration with the Vancouver Board of Parks and Recreation with the goal to enhance fish and wildlife habitat in Burrard Inlet and to increase public access to nature. The site was selected based on its potential to benefit a broad range of fish and wildlife species and increase the overall ecological health of the area. The project enhanced a historically filled foreshore and upland area to provide high-value habitat for fish, birds and other wildlife. Notably, the saltmarsh and associated habitats provide habitat for a broad range of species; for example, juvenile salmon that migrate through Burrard Inlet, waterfowl and gulls that seek protected water during the winter, songbirds that nest in shrub thickets near water, and native bees that forage on flowering plants in meadow habitats. Key project details are:

- Date of Construction: Completed in Spring 2017
- Intended benefits to fish productivity: Create approximately 10,000 m² of new fish habitat
- Current Status: Post construction monitoring in progress

Performance Target

The project was developed based on the following Performance Target that will be measured using specific Fish Habitat Indicators:

Performance Target – Creation of 5,000 m² of new Marine Tidal Habitat and Construction of 5,000 m² of new riparian habitat

The targeted marine tidal habitat types were salt marsh, tidal mudflat, tidal channel and cobble beach. The targeted riparian habitat is a selection of native plant species that would be established in the area adjacent to the Marine Tidal Habitat

Fish Habitat Indicators

- Geospatial As-Built Data
- Plant Species Composition
- Vegetated Aerial Coverage (Marine Tidal Habitat)
- Plant survivorship (Riparian Habitat)
- Plant Vigour
- Presence of Invasive Plant Species

Example Withdrawal of Credits

The habitat created by the project is anticipated to be “nominally functional” by 2019 and “fully functional” by 2021. For the purposes of this example, a simplified evaluation of the project is provided with a comparison made between the fisheries benefits for withdrawals made in 2019 and 2021 respectively. Potential risks are also identified and adaptive management strategies are described.



New Brighton Park Shoreline Restoration Project

Table 1 – Comparison of Fisheries Benefits for Withdrawals made in 2019 and 2021

Performance Target: Creation of 5,000 m ² of new Marine Tidal Habitat and Creation of 5,000 m ² of Riparian Habitat		
Fish Habitat Indicator	Indicator Details	Commentary
• Geospatial As-built Data	Topographic information related to habitat area, elevations, slopes, etc.	VFPA's habitat sites are designed by skilled professionals to provide high level of assurances for long-term stability of the site. Construction oversight is provided by the Professional Engineer responsible for the design to ensure that the project is constructed as designed. There should not be any significant changes in the geospatial conditions and it is anticipated that these conditions will remain consistent with original design. Potential Risk: Slope stability (low risk) – the first two years of a project are the most critical period for determining the stability of newly constructed slopes. Therefore by 2019, any significant stability issues would have been identified and appropriate adaptive management strategies implemented. These strategies could include the regrading of problematic slopes. Similarly, if slope stability issues are identified in the period between 2019 and 2021, the same adaptive management strategies could also be implemented.
• Plant Species Composition	Identification of plant species compared with original planting prescription	Planting prescriptions are prepared by wetland ecologists using current knowledge of local habitat areas to create natural, biodiverse fish habitat. The composition of plant species typically stabilizes in the first two years following planting. Potential Risk: Plant species composition changes from 2019 to 2021 and biodiversity is lower. Adaptive management strategies could include supplemental planting and/or soil parameter testing to identify more suitable target species and invasive plant species management.
• Vegetated Aerial Coverage (Marine Tidal Habitat)	Plant densities and extent of coverage on an aerial basis	Areas of the Marine Tidal Habitat that have been designed to include aquatic plants are often subject to early stress factors such as herbivory from grazing geese. Plants are most susceptible during the first two years following planting. Fencing is typically used to prevent access by geese to the young aquatic plants. After these plants become established, the effects of herbivory are significantly reduced. Potential Risk: Vegetative spread does not occur at the rate anticipated. Adaptive management strategies could include supplemental planting, soil parameter testing to determine nutrient availability compared with nearby reference habitats and/or site observations to determine the effects of grazing or other disturbance that would suppress vegetative growth.
• Plant Survivorship (Riparian Habitat)	Plant quantities when compared to original planting prescription	Plant survivorship of riparian plants can usually be confirmed in the first two years of planting as issues related to poor quality plant stock, soil quality, drainage and plant competition would have been identified. Potential Risk: Plant survivorship declines from 2019 to 2021 – If dead or dying plants are noted as part of the monitoring program, adaptive management strategies (such as replanting with an alternate species) would be applied.
• Plant Vigour	Plant height, stem diameter, plant colour, stress indicators, etc.	Plant vigour is projected to be similar to the surrogate site by 2021 where the plants would be in their fourth growing season. By 2019, it is anticipated that plant vigour should be approximately 50% of the vigour of the surrogate site. Potential Risk - Risk that vigour does not increase as anticipated from 2019 to 2021. Adaptive management strategies could include supplemental planting, soil parameter testing to determine nutrient availability compared with nearby reference habitats and/or site observations to determine the effects of grazing or other disturbance that would suppress vegetative growth.
• Presence of Invasive Plant Species	Identification of invasive species and plant numbers and locations	Invasive plant species could become established at any point in time in the life of the habitat site. The most effective approach to the management of invasive plants is to ensure that the selected native plants become well-established to afford strong competition against the invasive plants. Monitoring for invasive plant species, and their subsequent removal, will be a continuous process for banked habitat sites. Potential Risk: Monitoring identifies the presence of invasive plants in the period between 2019 and 2021. Adaptive management strategies will include the removal of the invasive species and potential incorporation of other plant species or site conditions that could provide additional competition to the invasive plants.

From: [Ruffo, Gord](#)
To: [Nutton, Byron](#); [Melnick, Loriena](#); [Thorpe, Suzanne](#)
Cc: [Scott Northup](#); [Olson, Charlotte](#); [Scoble, Jemma](#)
Subject: Agenda for March 7 Meeting
Date: 2018-March-02 5:31:50 PM
Attachments: [2017-09-25-03-600-VFPA HEP Aboriginal Engagement Summary for DFO-DRAFT-Rev0.pdf](#)
[2018-03-07-03-600-VFPA-AGENDA-VFPA and DFO Liaison Meeting No 44-Rev0.pdf](#)

Byron, Loriena, Suzanne

Attached is the proposed Agenda for our March 7 meeting in your Nanaimo office. We are looking forward to our discussions and we appreciate this opportunity to discuss the details related to our new "Habitat Bank Arrangement".

I have also included, for your reference, our proposed "Aboriginal Consultation and Engagement Process" which we provided for your review following our September 2017 meeting.

Gord Ruffo P.Eng.
Program Manager
Habitat Enhancement Program



Vancouver Fraser Port Authority
100 The Pointe, 999 Canada Place
Vancouver, B.C. Canada V6C 3T4

P: 604.665.9018 | CELL: 604.202.8022
portvancouver.com



Meeting Agenda

Habitat Enhancement Program

DFO / VFPA Liaison Meeting

Meeting No. 44

Location: DFO - Nanaimo

Date: Wednesday, March 7, 2018 (10:00 AM– 12:00 PM)

Attendees:

Byron Nutton (DFO)
Suzanne Thorpe
Loriena Melnick

Gord Ruffo (VFPA)
Charlotte Olson (VFPA)
[REDACTED] (VFPA/HEM)
Jemma Scoble (VFPA)

AGENDA:

1. Indigenous consultation on VFPA's new Habitat Bank Arrangement

- DFO direction with respect to requirements for Indigenous consultation (re: letter of June 30, 2017 from Cheryl Webb)

2. VFPA's New Habitat Bank Arrangement

- DFO feedback on VFPA's draft Arrangement dated September 26, 2017
- Provision for use of habitat credits
- Confirmation of VFPA's Geographical Service Area

3. Schedule Constraints

- Expiration of current Working Agreement
- Schedule to finalize draft Arrangement for Indigenous consultation
- Schedule for Indigenous consultation

4. VFPA's 2017 Annual Reports

- Brief overview of key components of reports
- Form of DFO acceptance for deposit

s.19(1)



Habitat Enhancement Program
Aboriginal Consultation and Engagement Process
(2017-2018)

DRAFT – September 25 2017 (Rev0)

Overview and Purpose

Aboriginal consultation and engagement is a key requirement for the successful delivery of habitat projects undertaken by VFPA's Habitat Enhancement Program (HEP). As such, a robust process was established that guides Aboriginal consultation and is closely aligned with broader VFPA obligations and objectives related to Aboriginal consultation and engagement. This document not only describes the process implemented by the Habitat Enhancement Program for consulting and engaging with Aboriginal groups, it also identifies key points during the process for Aboriginal input and involvement on habitat projects.

Program Overview

The Vancouver Fraser Port Authority Habitat Enhancement Program proactively creates and enhances habitat for fish and wildlife. VFPA's Working Agreement with Fisheries and Oceans Canada (DFO) allows VFPA to apply fish habitat credits from proven, functioning habitat to offset future projects with approval from DFO. In short, VFPA aims to balance future infrastructure development opportunities with a healthy environment.

It is important to note that development projects are designed first to avoid project effects on fish and fish habitat; *using credits from the Habitat Enhancement Program is not the first choice to offset these potential effects*. If effects cannot be completely avoided, then project teams incorporate mitigation into project design to reduce effects. Offsetting is only considered if these other options are unavailable or insufficient.

VFPA enhances or creates habitat in advance of projects that may need to offset effects to fish and fish habitat. *To ensure the enhanced habitat continues to function well, VFPA undertakes regular monitoring guided by biologists and coastal engineers.*

Aboriginal Consultation and Engagement

VFPA manages lands and waters that intersect the asserted and established traditional territories and treaty lands of several Coast Salish First Nations. VFPA recognizes the history and contemporary interests of Aboriginal Peoples and works to establish and maintain productive relationships through Aboriginal consultation, regular communication, and a desire to engage in mutually beneficial opportunities to enhance the Asia-Pacific Gateway.

An integral part of project development and implementation is the relationship between VFPA and Aboriginal communities. Over the past several years, there has been an evolving awareness and recognition of the critical importance of appropriately and effectively consulting and engaging with the various Aboriginal communities within the port's area of jurisdiction.

VFPA recognizes and respects that local Aboriginal communities and their leadership want meaningful and ongoing input into the planning, operation, and expansion of port facilities and related transportation infrastructure. Accordingly, the port is committed to continued and active engagement with Aboriginal groups who have interests that may potentially be impacted by HEP projects.

VFPA's consultation and engagement for HEP projects aims to identify and address project-related impacts, to design and implement appropriate mitigation measures, and to explore opportunities for Aboriginal involvement such as participation in field studies and/or employment, training and contracting.

VFPA will consult with Aboriginal groups on VFPA's updated DFO-VFPA "*Habitat Bank Arrangement*" prior to execution of the Arrangement. Consultation will be undertaken with all groups within VFPA's Service Area as described in the Arrangement. VFPA will also engage these groups to obtain input in relation to project identification and to provide regular program updates.

As appropriate, VFPA will also consult with Aboriginal groups on individual habitat projects. The project-specific consultation process is outlined in the following pages.

Where relevant, the Habitat Enhancement Program also undertakes consultation in accordance with the requirements of regulatory processes such as the VFPA Project Environmental Review Process. Regulatory agencies may also undertake consultation as part of their process in reviewing habitat enhancement projects.

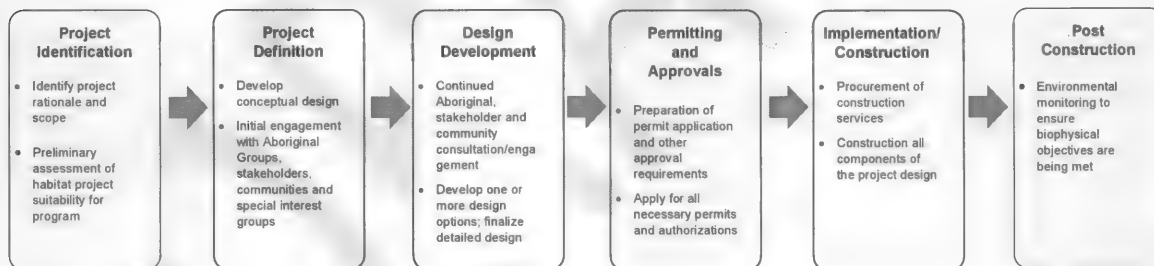
Project Development Process

The development of habitat enhancement projects is achieved through six basic project management phases that are used to guide and control the project from start to finish.

Commencing with the identification of a potential project, the process provides for the structured development and advancement of all required components required for project delivery.

- Phase 1 (**Project Identification**) – The “idea” or the vision of what could be achieved.
- Phase 2 (**Project Definition**) –What are the project objectives? Constraints?
- Phase 3 (**Design Development**) - How will the project objectives be achieved?
- Phase 4 (**Permitting and Approvals**) – Obtaining formal permission to perform the work.
- Phase 5 (**Implementation/Construction**) – Construction of the habitat project.
- Phase 6 (**Post Construction**) – Ensuring long-term success of the habitat project.

The illustration below depicts these six key project management phases and provides the key tasks associated with each.



Phase 1 - Project Identification

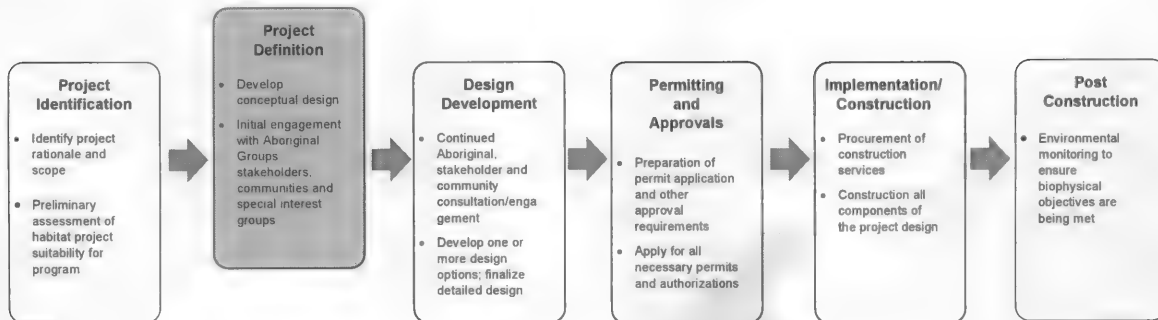


The identification of potential habitat projects is a critical component of the project delivery process. Consideration must be made for habitat need, habitat productivity, feasibility, cost, land tenure, DFO confirmation and Aboriginal considerations.

Aboriginal Consultation and Engagement

- *HEP seeks input from Aboriginal groups on identification of potential habitat enhancement sites*
- *HEP seeks input from Aboriginal groups on habitat enhancement projects identified by others*
- *Aboriginal groups share available traditional knowledge, information and studies*

Phase 2 - Project Definition

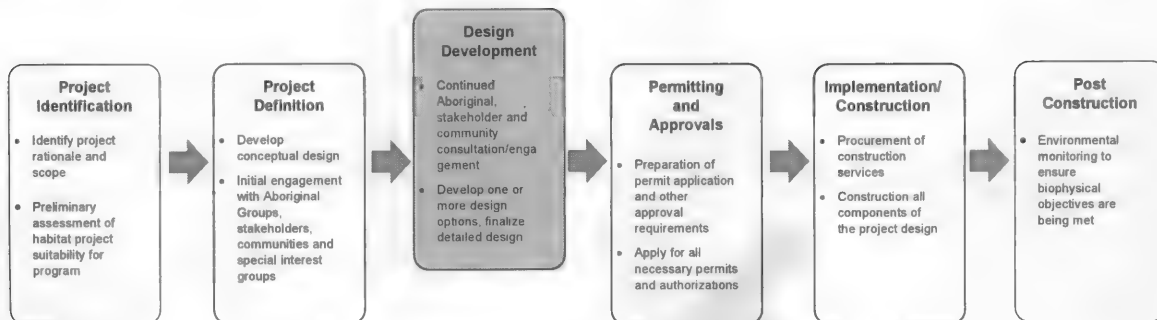


The development of conceptual designs is key in defining what a habitat project could include. Using these concept designs, initial engagement and consultation on specific project features can commence.

Aboriginal Consultation and Engagement

- *HEP consults Aboriginal groups on preferred engagement activities for project (e.g. Aboriginal Technical Design Committee)*
- *HEP consults Aboriginal groups on project concept*
- *HEP identifies potential habitat values (i.e. credit estimates) that could be created and engages with interested Aboriginal Groups*
- *Aboriginal groups share Traditional Knowledge with HEP*
- *HEP identifies opportunity for involving Aboriginal groups in field studies and assessments*
- *HEP commences planning for Aboriginal involvement throughout project (e.g. contracting, employment and training opportunities)*

Phase 3 - Design Development

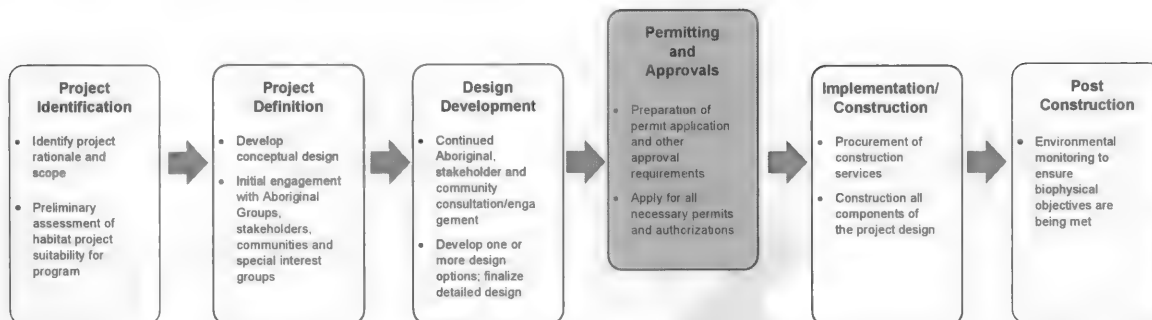


In the design phase, one or more designs are developed and evaluated. Through an iterative design process, a final design is selected and is refined to include all details necessary for construction.

Aboriginal Consultation and Engagement

- HEP consults Aboriginal groups on the design options*
- HEP considers Aboriginal feedback and refines design of project where appropriate (including selection of plant species)*
- Where required, HEP undertakes further consultation with Aboriginal groups on the design*
- HEP finalizes the design*
- HEP shares final design with Aboriginal groups*
- HEP confirms habitat values (i.e. credits) and consults with Aboriginal groups*
- HEP obtains DFO confirmation of appropriateness of habitat project for the Habitat Enhancement Program*
- HEP plans for continued Aboriginal involvement in subsequent phases*

Phase 4 - Permitting and Approvals

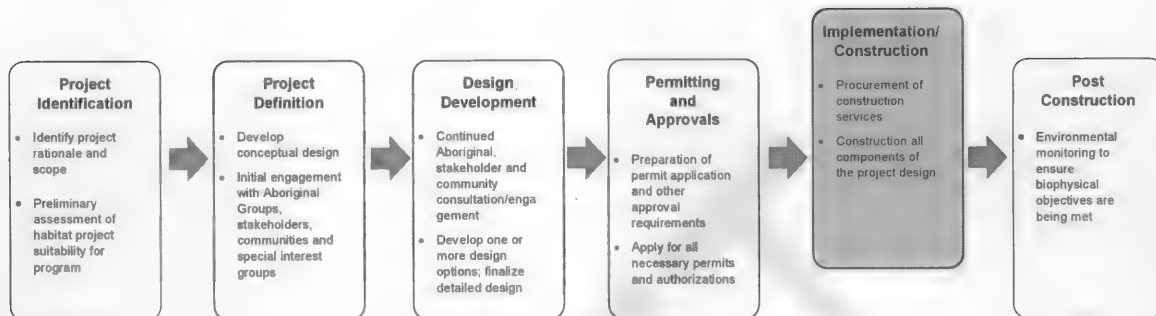


Permits and approvals that are required must be addressed on a project-by-project basis as regulatory requirements and land ownership can vary significantly.

Aboriginal Consultation and Engagement

- *HEP engages with Aboriginal groups in relation to permits and approvals*
- *HEP develops a summary of permits and approvals required and shares with Aboriginal groups*
- *HEP seeks Aboriginal input and support on permit applications*
- *HEP notifies Aboriginal groups on submission of permit applications*
- *Regulators and permitting authorities may undertake Aboriginal consultation*
- *HEP plans for continued Aboriginal involvement in subsequent phases*

Phase 5 -Implementation/Construction

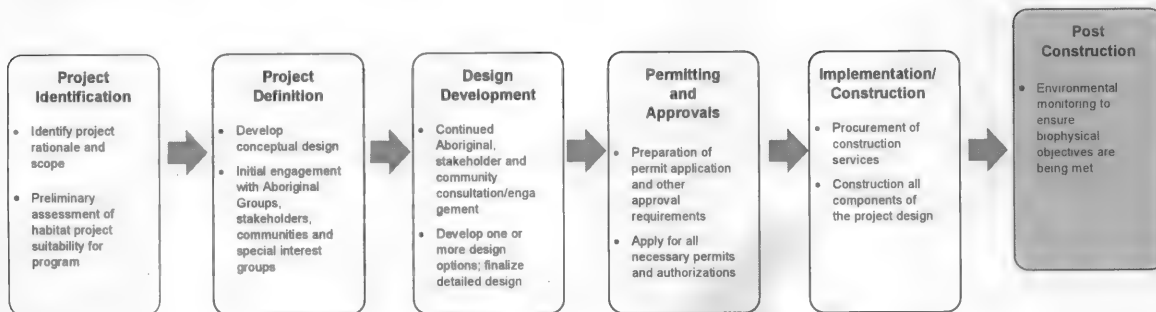


The habitat project truly takes shape during the Implementation/Construction Phase as all the effort

Aboriginal Consultation and Engagement

- HEP identifies approach to procurement and determines opportunities for Aboriginal involvement/benefits*
- HEP monitors conditions of approval/permits and any commitments to Aboriginal groups*
- HEP continues to keep Aboriginal groups updated on progress of construction*
- HEP plans for continued Aboriginal involvement in Post Construction Phase*

Phase 6- Post Construction



Aboriginal Consultation and Engagement

- HEP shares Post Construction Monitoring Plan with Aboriginal groups*
- Potential contracting opportunities for Aboriginal groups (e.g. maintenance, monitoring)*

Nutton, Byron

Subject: VFPA Habitat Bank
Location: DFO CONF Nanaimo-3190HammondBayRd-3-T325 CONF MPO
Start: Wed 2018-03-07 9:30 AM
End: Wed 2018-03-07 12:30 PM
Show Time As: Tentative
Recurrence: (none)
Meeting Status: Not yet responded
Organizer: Nutton, Byron

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Nutton, Byron

Subject: VFPA's Arrangement for Habitat Banking
Location: DFO- Nanaimo

Start: Wed 2018-03-07 10:00 AM
End: Wed 2018-03-07 12:00 PM

Recurrence: (none)

Meeting Status: Not yet responded

Organizer: 'Ruffo, Gord'

Loriena, Byron

We will forward an agenda next week but the intent of this meeting is:

1. to discuss our approach to Indigenous engagement on our new Habitat Bank Arrangement 2. review outstanding provisions in the draft Arrangement 3. preparation for joint meeting with TWN

Thanks

Gord

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Melnick, Loriena

Subject: VFPA's Arrangement for Habitat Banking
Location: DFO- Nanaimo

Start: Wed 3/7/2018 10:00 AM
End: Wed 3/7/2018 12:00 PM

Recurrence: (none)

Meeting Status: Accepted

Organizer: Ruffo, Gord

Loriena, Byron

We will forward an agenda next week but the intent of this meeting is:

1. to discuss our approach to Indigenous engagement on our new Habitat Bank Arrangement
2. review outstanding provisions in the draft Arrangement
3. preparation for joint meeting with TWN

Thanks

Gord

Habitat Enhancement Program**DFO / VFPA Liaison Meeting**

Meeting No. 44

Location: DFO - Nanaimo

Date: Wednesday, March 7, 2018 (10:00 AM– 12:00 PM)

Attendees:

Byron Nutton (DFO)
Suzanne Thorpe
Loriena Melnick

Gord Ruffo (VFPA)
Charlotte Olson (VFPA)
[REDACTED] (VFPA/HEM)
Jemma Scoble (VFPA)

AGENDA:**1. Indigenous consultation on VFPA's new Habitat Bank Arrangement**

- DFO direction with respect to requirements for Indigenous consultation (re: letter of June 30, 2017 from Cheryl Webb)

2. VFPA's New Habitat Bank Arrangement

- DFO feedback on VFPA's draft Arrangement dated September 26, 2017
- Provision for use of habitat credits
- Confirmation of VFPA's Geographical Service Area

3. Schedule Constraints

- Expiration of current Working Agreement
- Schedule to finalize draft Arrangement for Indigenous consultation
- Schedule for Indigenous consultation

4. VFPA's 2017 Annual Reports

- Brief overview of key components of reports
- Form of DFO acceptance for deposit

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MEETING SUMMARY/ACTIONS: DFO/VFPA Regular Liaison Meeting
DATE: March 7, 2018

LOCATION: Nanaimo DFO Office

NEXT MEETING – April 2018, date TBC

ATTENDEES:
DFO Representatives:

 Byron Nutton (BN), DFO
 Lorienta Melnick (LN), DFO
 Suzanne Thorpe (ST), DFO

Habitat Enhancement Program/VFPA Representatives:

 Gord Ruffo, VFPA (GR); Charlotte Olson, VFPA (CO); Jemma Scoble, VFPA (JS)
 [REDACTED] Hemmera

Charlotte Olson & Gord Ruffo led the meeting following the March 7, 2018 Agenda.

CURRENT MEETING ACTIONS (March 7/18 Meeting):

No.	DESCRIPTION:	ACTION BY:	ACTION DUE DATE:	COMMENTS:
1.	VFPA to provide DFO a description (scope and timeline) of proposed Indigenous engagement on the draft VFPA-DFO habitat bank Arrangement (as requested by DFO)	VFPA (JS)	March 21/18	VFPA has prepared a September 2017 document describing VFPA's approach to consultation and engagement on HEP. DFO expectations were communicated to VFPA at this March 7/18 meeting.
2.	DFO (BN) to review and confirm above approach meets DFO expectations, per DFO request in June 30, 2017 letter to VFPA	DFO (BN)	April 4/18	DFO acknowledged representatives/resources would be available to participate in VFPA-led engagement on the Arrangement in the coming months, and DFO acknowledged the short time frame before current Agreement expiry.
3.	VFPA to lead, and DFO to participate in appropriate engagement on VFPA's draft habitat bank Arrangement	VFPA DFO	April to September 2018	VFPA expressed that a long-term Arrangement is the priority. Goal is to complete engagement by September 2018, to facilitate signing of a new long-term habitat banking Arrangement.

Habitat Enhancement Program

No.	DESCRIPTION:	ACTION BY:	ACTION DUE DATE:	COMMENTS:
4.	DFO (BN) to follow up with Cheryl Webb and Al Magnan and confirm a letter extension to VFPA's current Working Agreement (if #3 above is not achievable by Sept 2018)	DFO (BN)	April 30/18	As a contingency plan to address the risk of not achieving Item #4 above, DFO is to provide a suitable length extension letter to existing VFPA Working Agreement, to support VFPA's advancement of habitat projects and investment in the program. This is critical to VFPA.
5.	VFPA to review and confirm description of 'geographic service area' per current draft Arrangement	VFPA (CO/GR)	March 21/18	VFPA to respond to DFO.
6.	DFO (BN/ST) to send VFPA formal comments on Sept 26/17 version of draft Arrangement provided to DFO for comment	DFO (ST)	March 16/18	ST to send by email to VFPA (CO/GR) by March 16/18.
7.	DFO (BN) review VFPA's 2017 Annual Reports submitted to DFO. Confirm current Dec 31/17 bank ledger totals, and acknowledge by letter (or equivalent) to VFPA the 2017 habitat credit deposit for New Brighton Park	DFO (BN)	April 15/18	BN to provide acknowledgement (in writing) to VFPA of deposit of New Brighton Park habitat credits to VFPAs habitat bank in 2017; previous deposit process with Holly Pulvermacher (DFO) included a letter issued by DFO to VFPA confirming habitat bank credit totals as reported in Annual Report.
8.	VFPA to prepare Project Confirmation Document for Maplewood Marine Restoration Project, and submit to DFO (BN) for review and confirmation	VFPA (CO/GR)	Target by April 30/18	Process is consistent with past VFPA habitat projects.

Thorpe, Suzanne

From: Nutton, Byron
Sent: Thursday, March 8, 2018 9:48 AM
To: Thorpe, Suzanne
Subject: RE: INFORMAL: Port of Vancouver - Habitat banking

As far as I know we haven't responded other than in discussion at the meeting yesterday. They sent the note directly to Nick Winfield, with a copy me, but I haven't seen any correspondence in response. Al has followed up with NHQ but we haven't heard anything back yet.

The only letter from Cheryl that I am aware of is the 1-year extension issued last summer.

From: Thorpe, Suzanne
Sent: 2018-March-08 9:41 AM
To: Nutton, Byron
Subject: RE: INFORMAL: Port of Vancouver - Habitat banking

Hi Byron ;

Can you please send me the letter from Cheryl in response to the letter from VFPA regarding 'Credit withdrawal from Habitat Banks'.

Thx,

Suzanne

From: Nutton, Byron
Sent: 2018-March-06 3:45 PM
To: Thorpe, Suzanne
Subject: FW: INFORMAL: Port of Vancouver - Habitat banking

From: Nutton, Byron
Sent: 2018-March-02 9:05 AM
To: Magnan, Alain
Subject: RE: INFORMAL: Port of Vancouver - Habitat banking

Hey Al,

Loriena, Suzanne and I are meeting with them, face to face, here at PBS on Wednesday (March 7) to discuss their most recent proposed drafts of the Arrangement and Indigenous engagement plan.

The particular issues we are working towards resolution on are:

- Adequacy of the Indigenous engagement plan
- Service area for the Arrangement
- At what point are the credits available for use – immediately upon construction in anticipation of habitat becoming fully functional, or after an initial monitoring period to verify full functionality

Regarding bullet 3, please see attached information they submitted directly to Director General for consideration. You will note that they are proposing the ability to use credits prior to being confirmed, with the provision of including outstanding monitoring requirements in the associated Fisheries Act Authorization. You will recall that we have previously discuss this issue, and have not been in favour with this approach.

If you need anything else at this time please let me know, otherwise I should be able to provide something with a bit more detail after the meeting next week.

Cheers,

Byron

From: Magnan, Alain
Sent: 2018-March-02 8:33 AM
To: Nutton, Byron
Subject: Fw: INFORMAL: Port of Vancouver - Habitat banking

Byron,

Any updates.

Al

Sent from my BlackBerry 10 smartphone on the Rogers network.

From: Webb, Cheryl <Cheryl.Webb@dfo-mpo.gc.ca>
Sent: Friday, March 2, 2018 8:29 AM
To: Magnan, Alain
Subject: FW: INFORMAL: Port of Vancouver - Habitat banking

Can I get an update Al.

Thanks, Cheryl

From: Kaba, Kyle
Sent: Friday, March 2, 2018 8:27 AM
To: Webb, Cheryl <Cheryl.Webb@dfo-mpo.gc.ca>
Cc: Fogliato, Cara <Cara.Fogliato@dfo-mpo.gc.ca>
Subject: RE: INFORMAL: Port of Vancouver - Habitat banking

Hi Cheryl – MINO is asking for an update on the status of negotiations related to the Port of Van habitat banking agreement. Is there any information we can share?

Thanks
Kyle

From: Trudeau, Miriam
Sent: 2018-March-01 9:09 AM
To: Kaba, Kyle; Richter, Julie
Cc: Butcher, Ashley; Malko, Carol; Jarjour, Jasmine; Marroquin, René; Trudeau, Miriam; Villeneuve, Anne-Marie
Subject: INFORMAL: Port of Vancouver - Habitat banking

Kyle/Julie, let me know who is the lucky winner?

MINO is asking if they can get an update about the status of negotiations relating to the Port of Vancouver habitat banking agreement?

Miriam

Miriam Trudeau
Director, Departmental Liaison
Directrice, Liaison ministériel

Fisheries and Oceans Canada | Pêches et Océans Canada
200 Kent Street | 200, rue Kent | 15N114
Ottawa, Canada K1A 0E6
(613) 947-4557 | miriam.trudeau@dfo-mpo.gc.ca

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Thorpe, Suzanne

From: Thorpe, Suzanne
Sent: Friday, March 9, 2018 4:30 PM
To: Nutton, Byron
Subject: Habitat Banking Arrangement - comments for your review.
Attachments: 2017-03-08_VFPAproposedchanges_DFO-VFPA-HBA_PSGedits.docx

I have made some notations in the margins and there are some questions for you in the comments as well. I still have some details to go over ... but your thoughts so far would be good. We can discuss in bilat time.

I would like to talk to Jenna from VFPA re: the Indigenous Consultation plan if you are agreeable to that. Based on my FAR experience, I think I may have some good advice for them.

Suzanne Thorpe

Partnerships, Standards and Guidelines/ Partenariats, normes et lignes directrices
Fisheries Protection Program/ Programme de protection des pêches
Ecosystem Management Branch / Direction de la gestion des écosystèmes
Fisheries and Oceans Canada (DFO), Pacific Region/ Pêches et Océans Canada, Région du Pacifique
Government of Canada/ Gouvernement du Canada
200-401 Burrard Street, Vancouver BC V6C 3S4 (13th Floor)/ 401 Burrard Street, bureau 200, Vancouver (C.-B.) V6C 3S4
Telephone: (604) 666.3512

VFPA proposed changes dated April 7, 2017, September 26~~18~~, 2017

Habitat Bank Arrangement:

PORT OF VANCOUVER HABITAT BANK

Between

VANCOUVER FRASER PORT AUTHORITY

AND

HER MAJESTY THE QUEEN IN RIGHT OF CANADA, as represented by the Minister of
Fisheries and Oceans on behalf of Fisheries and Oceans Canada ("DFO")

●, 2017

PATH Number: [INSERT PATH NUMBER]

VFPA proposed changes dated April 7, 2017 ~~September 26-18, 2017~~

1. INTRODUCTION

This document sets out the principles of the mutual understanding between **Vancouver Fraser Port Authority ("VFPA")** and Fisheries and Oceans Canada ("DFO") (hereafter referred to as "the Participants") for the **Port of Vancouver Habitat Bank ("Habitat Bank")**.

WHEREAS:

- a. Fisheries and Oceans Canada (DFO) is responsible for the administration of the *Fisheries Act*, more specifically the fisheries protection provisions including Sections 6, 20, 21, 35, 37, and 38 related to the conservation and protection of Canada's marine and freshwater fisheries resources and their habitats from the impact of human activities. The purpose of the fisheries protection provisions, as set out in Section 6.1 of the *Fisheries Act*, is to provide for the sustainability and ongoing productivity of commercial, recreational and Aboriginal fisheries;
- b. DFO is responsible for the administration of the *Species at Risk Act* ("SARA") with respect to aquatic species other than those individuals in or on federal lands administered by the Parks Canada Agency and, in that capacity, the Minister of Fisheries and Oceans has powers and duties with respect to protecting aquatic species listed under that Act and providing for their recovery;
- c. The Fisheries Protection Policy Statement's goal is to promote compliance with the *Fisheries Act* in order to contribute to the purpose set out in section 6.1 of the *Fisheries Act*;
- d. This Arrangement does not commit DFO to the authorization of any future work, undertaking or activity requiring an authorization under paragraph 35(2)(b) of the *Fisheries Act*, or permit any future project requiring a permit under sections 73 and 74 of the *Species at Risk Act*. All future projects will be reviewed on their own merit and a decision on whether to authorize or permit will be made independent of the existence of a habitat bank arrangement. This Arrangement, and any related communications between DFO and VFPA do not constitute a representation or commitment of any kind to VFPA regarding authorization of any future projects by DFO. This Arrangement, and any related communications, moreover does not constitute a commitment that any habitat credits that may be issued to a proponent will be acceptable in the context of future applications for *Fisheries Act* authorizations or SARA permits.
- e. VFPA is a port authority established by the Government of Canada pursuant to the *Canada Marine Act* and is accountable to the federal Minister of Transport. VFPA has a mandate to facilitate Canada's trade objectives, ensuring goods are moved safely, while protecting the environment and considering local communities. In fulfilling the mandate, VFPA carries out a variety of duties, including infrastructure development to support growth and efficient operations. The Habitat Bank can support such infrastructure development ~~by a proponent~~ when habitat credits are ~~acceptable~~ in the context of future *Fisheries Act* authorizations or SARA permits.

Commented [ST1]: Recommend the use of Indigenous as preferred terminology, based on recent recognition by federal gov't.
<https://www.ictinc.ca/blog/indigenous-or-aboriginal-which-is-correct>

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VFPA proposed changes dated April 7, 2017 September 26/28, 2017

- f. The Participants entered into a Working Agreement dated July 31, 2012 ("Working Agreement") relating to the procedures for development and operation of a VFPA-led habitat bank for a 5 year trial period which ~~has been~~ mutually extended by the Participants;
- g. VFPA has undertaken several habitat creation and enhancement projects in consultation with DFO pursuant to the Working Agreement, which are included in Annex E ("Existing Projects"); and
- h. This Arrangement will replace the Working Agreement and the Existing Projects will be managed pursuant to this Arrangement.

h-i. tbd

THEREFORE, the Participants agree to the following arrangement ("Arrangement").

2. PURPOSE

To support VFPA in fulfilling its mandate (referred to in paragraph e above) by facilitating infrastructure development by a proponent when habitat credits from the Habitat Bank can be applied to meet future offsetting requirements for such development. References to "proponent" for the purposes of this Arrangement, including the Guide, shall mean VFPA. Under this Arrangement VFPA may enter into agreements with ~~and other third parties to carry out a variety of activities including infrastructure development, support growth and otherwise permit~~ on behalf of VFPA, and may allow third parties to place habitat into the Habitat Bank as credit or to withdraw such credits, as defined by this Arrangement.

To replace the Working Agreement with this Arrangement and to establish revised principles for the continuation and management of the Habitat Bank by:

- establishing a working relationship between the Participants based on trust, accountability and information sharing;
- establishing a clear understandable ~~arrangement~~ Arrangement for managing the Habitat Bank; and,
- increasing certainty in the administration of the Habitat Bank.

3. OTHER GENERAL INFORMATION

The activities carried out under this Arrangement will be consistent with:

- Fisheries Protection Policy Statement (2013);
- Fisheries Productivity Investment Policy: A Proponent's Guide to Offsetting (2013); and
- Interim Fisheries Protection Program's Guide to Proponent-led Habitat Banking (October, 2016) ("Guide").
- ~~h-i. tbd~~

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Commented [ST2]: Include reference to extension to agreement in 2017 to Sept 2018

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Commented [ST3]: Byron:

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Commented [ST4]: This clause needs refinement. The previous Working Agreement specified the conditions of 3rd party involvement not as a proponent. DFO cannot enter into formal Agreement with unknown 3rd parties per se within this Arrangement. Proponent is VFPA; DFO is prepared to consider language around 3rd parties having agreements or arrangements with VFPA and for 3rd parties to act as "project proponents" where an authorization would allow deposit or use of credits where they have agreement from VFPA. Suggested re-write provided.

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Commented [ST5]: Consider addition of: SARA Recovery Strategies, Action Plans, Management Plans ... as well as any identified Fisheries Management Objectives (FMOs) identified within the Service Area.

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4. SCOPE

The scope of this Arrangement is limited to the continuation and administration of the Habitat Bank described in Annex A, and including conservation projects proposed in accordance with Annex B and the Existing Projects (described in Annex E).

5. ROLES AND RESPONSIBILITIES

The roles and responsibilities of the VFPA are:

- Jointly managing the performance of the Arrangement with DFO;
- Identifying, designing, constructing, monitoring, maintaining, and protecting conservation project sites;
- Meeting all other applicable federal, territorial, provincial and municipal requirements that apply to conservation projects;
- Reporting on performance of conservation projects;
- Accurately maintaining a copy of the habitat credit ledger; and,
- Preparing and submitting Progress Reports for the Arrangement.

The roles and responsibilities of DFO are:

- Jointly managing the performance of the Arrangement with VFPA;
- Reviewing, providing advice and confirming conservation project proposals;
- Reviewing Progress Reports, validating habitat credit balances in the habitat credit ledger, and processing habitat credit ledger transactions;
- Verifying the reported results of conservation project performance in the Progress Reports;
- When appropriate, carrying out direct monitoring (i.e., a site visit to gather and analyse samples or information in order to directly verify compliance and effectiveness) and/or carrying out indirect monitoring (i.e., an assessment of information provided in Progress Reports to verify compliance and effectiveness) of conservation project sites; and,
- Reviewing and processing Progress Reports of the Arrangement.

The Participants shall fulfill their responsibilities under this Arrangement in accordance with the provisions of federal, provincial and territorial laws and regulations that govern their activities. Should a Participant not be able to perform a function under this Arrangement, the affected Participant will immediately contact the other signatories of this Arrangement so that early resolution can be reached.

6. MANAGEMENT PROVISIONS

This Arrangement establishes the following management provisions for the administration of the Habitat Bank:

Commented [ST6]: "Conservation project" is not implicitly defined in this agreement and should be proposed to [REDACTED].

Commented [ST7]: Have all proposed projects in Table 2.0 been ACCEPTED by DFO as appropriate for the Habitat Bank? The Arrangement binds DFO to these undertakings as "acceptable" for the HB. Consider a caveat for those projects that DFO has not considered.

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- The accountability lies with the office of signatories of the Arrangement: Director, Infrastructure Sustainability, Vancouver Fraser Port Authority and Regional Director, Ecosystems Management, ~~of~~ DFO Pacific Region.
- The day to day administration of the Arrangement will be carried out by: Program Manager, Habitat Enhancement Program, Vancouver Fraser Port Authority; and Team Lead, Partnerships, Standards and Guidelines, ~~Fisheries Protection Program, of~~ DFO Pacific Region.

7. ADMINISTRATION OF THE HABITAT BANK ARRANGEMENT

- Specific details related to the principles of the administration and operation of the Habitat Bank are included in ANNEX A;
- Conservation projects that are proposed for development are to be submitted for review and confirmation by DFO using the "Project Confirmation" template set out in ANNEX B;
- Habitat credits held within the Habitat Bank shall be tracked using the "Habitat Credit Ledger" template and frequency set out in and described in ANNEX C;
- Progress Reports shall be prepared and submitted annually in accordance with the requirements of ANNEX D; and,
- Existing Projects that were ~~either constructed under the terms of the Working Agreement and deposited to the Habitat Bank or that are proposed by VFPA for construction under the terms of the Working Agreement and are identified in ANNEX E.~~

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Commented [ST8]: CONFIRM that conservation projects in Table 2.0 have been accepted by DFO, or include caveat (footnote) to denote those projects that are in progress or approvals and/or pending approval.

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8. SHARING OF INFORMATION

While this Arrangement is in effect and at all times thereafter, each of DFO and VFPA and any officers, employees or agents of each of them shall treat all information, data, documents, reports and materials acquired or to which access have been given in the course of, or incidental to, the performance of this Arrangement as confidential, subject to the federal *Access to Information Act* and the *Privacy Act*. ~~With the exception of the Arrangement, the annexes to the Arrangement and annual Progress Reports, which VFPA may disclose from time to time, the~~ Participants shall not disclose or permit to be disclosed such information, data, documents, reports and materials, unless:

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- the Participants agree to the disclosure;
- ~~the disclosure is part of the application and review process of VFPA's Project and Environmental Review for a proposed conservation project, which would include disclosure of project-specific information, engagement information for public stakeholder and Aboriginal groups and technical content, and the posting of on-line information;~~
- the disclosure is part of an application and review process of other regulatory agencies (such as Environment Canada for Disposal at Sea permit) for a proposed conservation project, which would include disclosure only as required by the such agencies;

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- the disclosure relates to the sharing of conservation project plans with Aboriginal groups as part of the project confirmation process (see Annex B);
- the disclosure is to a proponent other than VFPA third party as part of the Habitat Bank Administration as described in Annex A;
- the disclosure is required by law;
- the information was obtained from the public; or,
- the information is available to the public.

Commented [OC9]: This bullet was revised by VFPA as requested following a meeting with Byron N. on Sept 26/17

9. ADD: CONSULTATION AND ENGAGEMENT CLAUSE

~~The Participants will undertake engagement with Indigenous groups ...~~

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9.10. DIFFERENCES IN INTERPRETATION AND APPLICATION

The Participants will endeavor to resolve issues regarding the implementation of this Arrangement in a timely manner using mechanisms available to the Participants. Where an issue remains unresolved, the pre-eminent jurisdiction responsible for the matter under consideration will make the final determination and seek concurrence from Director, Infrastructure Sustainability, Vancouver Fraser Port Authority and Regional Director, Ecosystems Management, ~~of~~ DFO Pacific Region.

10.11. PROGRESS REPORTS

The VFPA will prepare ~~a~~ progress reports using the form described in Annex D ("Progress Report") on the achievements and challenges encountered during the reporting period of this Arrangement as it relates to the purposes identified in section 2 of this Arrangement.

The Progress Report should be submitted within 90 calendar days from the conclusion of each year. A year will be considered to run from January 1 to December 31; _____

Commented [ST10]: Minor detail: should specify end date of March 31st, since this date would technically change if it were a leap year as opposed to standard year. Note DFO Fiscal Year runs April 1 to March 31st, and is "usually" the timeframe used for annual reporting (to include the winter period). DFO not opposed to the modification per calendar year, however, FY reporting is preferred.

The Progress Report will be submitted to the Office of signatories of the Arrangement, Director, Infrastructure Sustainability, Vancouver Fraser Port Authority and Regional Director, Ecosystems Management, ~~of~~ DFO Pacific Region, for their concurrence.

All Progress Reports will conform to the requirements set out in ANNEX D.

11.12. REVIEW

At the end of each five (5) year period during which this Arrangement is in effect, the Regional Director, Ecosystems Management, ~~of~~ DFO Pacific Region. ~~of~~ DFO will establish a review team consisting of Program Manager, Habitat Enhancement Program, Vancouver Fraser Port Authority and Team Lead, Partnerships, Standards and Guidelines, Fisheries Protection Program, ~~of~~ DFO Pacific Region, ~~of~~ DFO or an appropriately qualified and mutually agreed to third party to review the effectiveness of activities under this Arrangement. This review team will report to the Regional Director, Ecosystems Management, ~~of~~ DFO Pacific Region, within six (6) months of being established.

Commented [ST11]: Should specify what the group will report on and in what format. If written report, will VFPA take lead? If QEP, will this be paid and managed by the proponent?

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~~12.~~13. AMENDMENT

The Arrangement may be amended at any time in writing and by mutual consent of the Participants. An amendment will be confirmed by an exchange of letters, signed by the Participants, setting out the amendment and its effective date.

~~13.~~14. FINANCIAL ARRANGEMENT

This Arrangement will not impose any additional financial responsibilities on the Participants, except that each Participant will be responsible for the staff and funding costs it incurs in its own interests, related to the support of the Arrangement.

~~14.~~15. DURATION, WITHDRAWAL AND TERMINATION

This Arrangement is in effect for a period of twenty years. VFPA can request a renewal of the Arrangement for an additional defined term (of no less than five years) by providing one year's written notice to the other Participant. If this Arrangement is not renewed at the expiration of the term or a renewal, and provided that VFPA is not in breach of this Arrangement, the Participants will continue to apply the terms of this Arrangement to all conservation projects that are either deposited in the Habitat Bank or have been confirmed by DFO in accordance with Annex B. [NTD: VFPA maintains its preference for a 20-year term for the Arrangement. This duration supports VFPA's significant investment in its habitat bank and provides longer-term assurances for the development of new habitat sites in the future. Should DFO policy change within this 20 year term, the Arrangement can accommodate these changes through its 5 year review process identified in Clause 11 – Review and through the provision for amending the Arrangement identified in Clause 12 – Amendment.]

Commented [ST12]: Timeframe to be confirmed.

16. LEGAL DISCLAIMER

This Arrangement is an expression of the mutual intentions of the Participants and is not legally binding or enforceable against them.

Commented [ST13]: If we do this, we should explicitly state this within the Agreement. Should the Agreement specifically allow for the modification of Annexes, as needed, to remain up-to-date (e.g., consultation plan/ conservation projects lists).

~~15.~~17. NOTICE

All notices to be given under this Arrangement shall be in writing and shall be sent by prepaid registered mail or facsimile transmission addressed to the Party entitled to receive the same, or delivered to such party as follows:

Commented [ST14]: Obsolete? Or is this some sort of legal preference/ requirement. Who uses fax these days?

• ~~if to VFPA:~~

Vancouver Fraser Port Authority (VFPA)
100 The Pointe
999 Canada Place
Vancouver, British Columbia
V6C 3T4

VFPA proposed changes dated ~~April 7, 2017~~ September 26~~th~~, 2017

Attention: Director, Infrastructure Sustainability
Facsimile: 1.866.212.1688

Commented [ST15]: Obsolete?

with a copy to:

Attention: Director, Legal Services
Facsimile: 1.866.665.9062

• ~~if (a) (b) (c):~~

Fisheries and Oceans Canada (DFO)
Pacific Region, Ecosystems Management Branch
Suite 200 – 401 Burrard Street
Vancouver, BC
V6C 3S4

Attention: Regional Director
Facsimile: 604-666-0417

~~46.18.~~ GENERAL

VFPA is entering into this Arrangement on its own behalf and not as agent of Her Majesty in Right of Canada.

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EFFECTIVE DATE AND SIGNATURE

This Arrangement has been signed by the Regional Director of DFO Pacific Region of Fisheries and Oceans on behalf of Her Majesty the Queen in Right of Canada and by the VFPA on the dates noted below.

SIGNED IN THE PRESENCE OF:

FOR HER MAJESTY THE QUEEN IN RIGHT OF CANADA

Regional Director,
Ecosystems Management,
of DFO Pacific Region
of Fisheries and Oceans Canada

Witness

Commented [ST16]: Byron – this signature format is strange – is this used for Authorizations or other documents that I am unaware of? Suggest modification to similar below.

[INSERT NAME]
Regional Director,
Ecosystems Management,
of DFO Pacific Region
of Fisheries and Oceans Canada

Date

FOR VANCOUVER FRASER PORT AUTHORITY

Robin Silvester
President and CEO

Witness (as to both)

J. Dean Readman
Corporate Secretary

Date

This Arrangement comes into effect on the date that both Participants have signed above.

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ANNEX A

**HABITAT BANK DESCRIPTION AND THE PRINCIPLES FOR THE MANAGEMENT
OF THE PORT OF VANCOUVER HABITAT BANK**

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VFPA proposed changes dated April 7, 2017 September 26/18, 2017

ANNEX A:	
HABITAT BANK DESCRIPTION AND THE PRINCIPLES FOR THE MANAGEMENT OF	
Information Required	Description
Habitat Bank Location ("Service Area")	<p>The Service Area of the Habitat Bank will include conservation projects situated geographically within the Fraser River Estuary and its tributaries, Burrard Inlet, the Strait of Georgia and its associated inlets and other areas as established from time to time as mutually agreed to by the Participants.</p> <p><u>[NTD: The rationale for the proposed Service Area is as follows: VFPA manages over 16,000 hectares of waterway, more than 1,000 hectares of land and approximately 350 kilometers of shoreline. Such areas includes estuarine and marine shoreline that supports a myriad of commercial, recreational and Aboriginal fisheries and fish that support these fisheries. Some of these fisheries species exhibit anadromous or migratory life histories. For example, Pacific salmon spend the adult portions of their lives feeding in the Pacific Ocean, including the Strait of Georgia, spawn in freshwater rivers and tributaries of the Fraser River and Burrard Inlet, and rear in the Fraser River estuary and along shallow marine shorelines. Habitat creation and enhancement targeted at migratory species can be planned throughout the proposed geographic service area and to the benefit of CRA species that occupy and transit the areas VFPA manages.]</u></p>
Habitat Bank Administration	<p>The Habitat Bank is a long-term initiative, comprised of conservation projects, that is used to proactively develop, enhance, rebuild, restore or rehabilitate fish habitat and enhance habitat for the benefit of fish and wildlife species. -Consistent with VFPA's mandate, this enables VFPA to balance future infrastructure development opportunities with a healthy environment.</p> <p><u>Selection:</u></p> <p>Conservation projects for the Habitat Bank will generally be selected based on the following considerations and criteria:</p> <p>(a) <u>Need:</u> Locations characterized by low productive capacity for species and stocks of interest or species at risk will be considered as a priority for the Habitat Bank. The intent is to develop or improve habitat capacity in the Service Area where habitat is needed and in support of applicable DFO policies.</p>

Commented [ST17]: VFPA considering modification to "service area".

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	<p>(b) <u>Habitat Productivity</u>: Emphasis will be placed on creation of high value habitat types that support a large number of ecological services and species functions (e.g. eelgrass beds and low marshes). The value of productivity will be assessed in the context of "need" (see (a) above).</p> <p>(c) <u>Site location</u>: Sites for the Habitat Bank will be selected based on their proximity to potential development areas with significant or rare ecological habitats or where onsite habitat compensation opportunities may be limited.</p> <p>(d) <u>Feasibility and cost</u>: Coastal zone processes, river hydraulics biological productivity and ecological functioning are amongst the factors that will be used to determine the feasibility of habitat creation. In some areas it may not be possible to achieve stable self-functioning habitat due to ongoing influences of physical processes. Further, some habitat creation options may be possible but only at extreme high cost. Consideration may be given if these habitat types are critical for endangered or threatened species and the habitat credit applied to the Habitat Bank recognizes the increased cost of development.</p> <p>(d)(c) <u>Ownership and Tenure</u>:</p> <p>Through regular liaison meetings between DFO and VFPA representatives, potential conservation projects are identified and discussed.</p> <p>DFO's confirmation of the appropriateness of a proposed conservation project for inclusion in the Habitat Bank is achieved through submitting the project for review and confirmation by DFO using the "Project Confirmation" template set out in ANNEX B.</p> <p><u>Part B: References</u></p> <p>Conservation projects for inclusion in the Habitat Bank may be developed in collaboration with or by, and for the benefit of, third parties. Once included in the Habitat Bank, such conservation projects will be treated in the same manner as other conservation projects that have been placed into the Habitat Bank.</p> <p>VFPA may opt to make its credits available to other third parties with offsetting requirements in the Service Area.</p> <p>Habitat Credits</p> <p>Habitat credit valuation will be established specifically for each conservation project. This valuation will include the unit of measure and the value of the credits to be deposited in the Habitat Bank. A</p>
--	--

Commented [ST18]: This component from the former Working Agreement is not included in this Arrangement. DFO would like the subject of ownership/tenure to be addressed such that long-term protection of the conservation projects is guaranteed by VFPA.

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VFPA proposed changes dated April 7, 2017 September 26/28, 2017

	<p>description of the approach and the analysis performed will be included in the preparation of the "Project Confirmation" using the template set out in ANNEX B.</p> <p>Conservation projects will be recorded as a deposit into the Habitat Bank on the Habitat Credit Ledger upon completion of construction of the conservation project. ANNEX C.</p> <p>The actual productive value of a particular conservation project will be determined immediately prior to its proposed application as credit to offset a development project.</p> <p>VFPA shall, either through ownership, lease, licence or other agreement, ensure that a conservation project site is protected at least until the withdrawal of the habitat credits from the Bank that are associated with the conservation project site.</p>
Bank Establishment Date	<p>July 31, 2012 under the terms of the Working Agreement, which was executed on September 10, 2012.</p> <p>Add: extension</p> <p>Add: new agreement</p>

Commented [ST19]: Byron: Concern that habitat constructed through the habitat bank be protected in perpetuity and not subject to removal via Authorization under the FA. The only way to guarantee this is through registration via Restrictive Covenant or otherwise dedicate the land to a conservation entity.

s.21(1)(a)

s.21(1)(b)

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ANNEX B

FORM OF PROJECT CONFIRMATION

The following document template (titled Project Confirmation) will be used to identify and confirm that a proposed conservation project is appropriate and confirmed for development and deposit in the Habitat Bank.

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VFPA proposed changes dated April 7, 2017 September 26/28, 2017

 PORT of vancouver Habitat Enhancement Program	 Fisheries and Oceans Canada Pêches et Océans Canada <u>Project Confirmation</u>
PROJECT NAME:	

Terminology used:

- "Arrangement" refers to the arrangement between Fisheries and Oceans Canada and Vancouver Fraser Port Authority for the management and administration of the Vancouver Fraser Port Authority Habitat Bank
- "DFO" refers to Fisheries and Oceans Canada
- "FPIP" refers to *Fisheries Productivity Investment Policy: A Proponent's Guide to Offsetting* (2013)
- "VFPA" refers to Vancouver Fraser Port Authority
- "Project" refers to the proposed _____
- "QEP" refers to a Qualified Environmental Professional

Preamble:

In accordance with the Arrangement, this Project Confirmation will be used to confirm that:

- VFPA consulted and negotiated with DFO on the suitability of the above-referenced Project for habitat banking purposes.
- DFO agrees, in principle, that the above-referenced Project would be acceptable as fish habitat as identified herein.
- DFO agrees that the identified type of fish habitat and the approximate quantity of fish habitat would be suitable for habitat banking.
- The Project meets the terms of the Arrangement with regard to need, fish habitat, productivity, site location, feasibility/cost, and ownership/tenure.
- DFO acknowledges that VFPA has developed the project concept and will move to final design as identified in the attached drawings.

This Project Confirmation is used to support the conditions and requirements of the Arrangement and does not alter or modify the Arrangement in any manner. This Project Confirmation will also be used to confirm that the Project, if constructed as proposed, meets the objectives of the FPIP. An assisted assessment has determined that a DFO regulatory review pursuant to the Fisheries Act is not required for the Project. This assessment was conducted by a QEP in accordance with guidance from DFO's Projects Near Water web site and DFO's "Science Advice for Managing Risk and Uncertainty in Operational Decisions of the Fisheries Protection Program" (2014). As would be expected for a viable habitat enhancement opportunity, this assessment concluded that the Project will not result in Serious Harm to fish that contribute to commercial, recreational or Aboriginal (CRA) fisheries.

As the Project proceeds, VFPA will maintain responsibility to ensure that the Project has undergone appropriate reviews and assessments, including those mandated by applicable environmental assessment legislation (e.g., Species at Risk Act, if applicable) and any other VFPA-mandated reviews and assessments.

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Commented [ST20]: Agreement and the "Habitat Bank".

Byron – please review wording here to ensure consistent with what was completed nationally w/r/t these "projects." If we use this language "Project" should be explicitly defined. This is somewhat confusing to me.

The guide does however, state that a blanket impact assessment has been approved for the "banking arrangement".

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VFPA proposed changes dated April 7, 2017 September 26~~th~~, 2017

Project Overview:	
<ul style="list-style-type: none"> <i>Description of the proposed project, and how the proposed project will result in the creation of high-value fish habitat that will provide long-term benefits for salmonid stocks, SARA listed species, and other fish and wildlife that utilize the project area.</i> <i>Description and quantification/ valuation of the ecological functions that the proposed project will include</i> <i>Brief description of the proposed construction activities, including how they will be undertaken to avoid and mitigate any impacts to fish and fish habitat</i> <i>Brief description of the proposed timing for project completion, including post-construction monitoring.</i> 	
Water feature name:	
Location of Works	
Regional district/ land use authority:	
City/municipality:	
Lat./Long.	
Property ownership:	
Description of Pre-Construction Values	
<ul style="list-style-type: none"> <i>Description of pre-construction habitat values and conditions, including biophysical attributes</i> <i>Description of pre-construction use of the area, including site history as appropriate</i> 	
Description of Proposed Activities	
<ul style="list-style-type: none"> <i>Detailed description of construction activities and design approach</i> <i>Includes attachment of design drawings, and proposed habitat area for construction</i> <i>Description of construction methodology and detailed mitigation measures</i> 	
Overall work schedule:	
Least risk work window:	

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Potential Habitat Gains and Anticipated Affected Areas			
<ul style="list-style-type: none"> Description of habitat gains, and anticipated affected habitat, table format 			
Habitat Type	Potential Habitat Gain (m ²)	Anticipated Affected Habitat (m ²)	Comments
X Habitat Type			
Habitat Gains and Affected Habitat			

Fish Productivity Investment Policy Considerations
<ul style="list-style-type: none"> Description and high-level summary of how the proposed project is expected to comply with FPIP objectives, based on project characteristics, ecology of relevant fisheries species, fisheries management objectives, and any local restoration priorities. This includes a review of readily available online information including DFO fisheries management plans and other documents as required Description and rationale for how the proposed project meets the following 4 Principles of the FPIP: <ul style="list-style-type: none"> Principle 1: Offsetting measures must support fisheries management objectives or local restoration priorities. <ul style="list-style-type: none"> Rationale: Principle 2: Benefits from offsetting measures must balance Project impacts. <ul style="list-style-type: none"> Rationale: Principle 3: Offsetting measures must provide additional benefits to the fishery. <ul style="list-style-type: none"> Rationale: Principle 4: Offsetting measures must generate self-sustaining benefits over the long-term. <ul style="list-style-type: none"> Rationale:

Post Construction Monitoring Plan
<ul style="list-style-type: none"> An as-built survey will be provided to document and confirm the size of the created habitat, following construction. VFPA will ensure that post-construction monitoring is undertaken in accordance with standard DFO requirements to confirm that created fish habitats are functioning as intended. A Post-Construction Monitoring Plan for the Habitat Enhancement Program has been created to outline monitoring requirements for habitat enhancement sites. Monitoring will include assessments of site stability, proper physical function, planting success, and

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achievement of the desired biological objectives.

- VFPA to provide an estimate of predicted time for the vegetation at the site to become well established

Attachments

- Design Drawings (attachment)

Signed on behalf of Vancouver Fraser Port Authority:

Habitat Enhancement Program
Vancouver Fraser Port Authority

Date: _____

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ANNEX C

HABITAT CREDIT LEDGER

The following template shall be used to record and track the credits associated with each conservation project that has been deposited in the Habitat Bank. The completed Habitat Credit Ledger will be submitted to DFO at the following frequency:

- with each Annual Report; and
- following a transaction in the Habitat Bank (withdrawal or deposit of credits).

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VFPA proposed changes dated April 7, 2017 September 26, 2018, 2017.

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ANNEX D

FORM OF PROGRESS REPORTS

The following reports will be used to document and communicate the status of the Habitat Bank on an annual basis:

- Annual Report for VFPA's Habitat Bank; and
- Annual Habitat Monitoring Report for VFPA's Habitat Bank.

Each report will be submitted to DFO on annual basis and shall include the detail as provided in the following Outline of Content.

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<u>ANNUAL REPORT FOR VFPA'S HABITAT BANK</u>	
– Outline of Content	
<u>SECTION</u>	<u>CONTENT</u>
1. Table of Contents	
2. Terminology Used	<ul style="list-style-type: none"> • Descriptions of terminology used in the report
3. Executive Summary	<ul style="list-style-type: none"> • Identification of purpose of Annual Report • Statement of commitment between Participants for a working relationship built on trust, accountability and information sharing • Overview of annual transactions and current credits
4. Introduction	<ul style="list-style-type: none"> • Background on the Habitat Bank • Acknowledgement of reporting requirements under the terms of the Arrangement
5. Administration of the Habitat Bank	<ul style="list-style-type: none"> • Tracking processes and responsibilities • Activities started/completed in Reporting Period • Annual Review • VFPA and DFO Liaison Activities • Achievements in Reporting Period
6. Credits in the Habitat Bank	<ul style="list-style-type: none"> • Summary of the credits in the Habitat Bank and the transaction that were performed in the reporting year
7. General Ledger	<ul style="list-style-type: none"> • Overview of the General Ledger
8. Habitat Balance Sheet	<ul style="list-style-type: none"> • Overview of the Habitat Balance Sheet
9. Anticipated Program for 20XX [Next Year]	<ul style="list-style-type: none"> • Projects Currently under Construction • Priority Projects for 20XX
10. Management Issues and Opportunities	<ul style="list-style-type: none"> • Challenges and issues encountered • Obstacles • Potential remedial measures for implementation next year
11. Engagement Activities	
12. Community Outreach	

Commented [ST22]: Suggested additions to improve reporting.

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<u>ANNUAL REPORT FOR VFPA'S HABITAT BANK</u>	
– Outline of Content	
SECTION	<u>CONTENT</u>
<u>Appendices</u>	
Appendix A	Summary of VFPA and DFO Meetings in the Reporting Year
Appendix B	As-Built Reports
Appendix C	Credit Transaction Reports
Appendix D	Map of Sites in the Habitat Bank
Appendix E	General Ledger
Appendix F	Habitat Balance Sheet
Appendix G	Map of Sites Proposed for Next Year

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<u>ANNUAL HABITAT MONITORING REPORT FOR VFPA'S HABITAT BANK</u>	
– Outline of Content	
<u>SECTION</u>	<u>CONTENT</u>
1. Terminology Used	<ul style="list-style-type: none"> • Descriptions of terminology used in the report
2. Introduction	<ul style="list-style-type: none"> • Background of the Habitat Bank • Acknowledgement of reporting requirements under the terms of the Arrangement
3. Types of Monitoring	<ul style="list-style-type: none"> • Description of the various types of monitoring that is used for the administration of the Habitat Bank
4. 20XX Monitoring Results	<ul style="list-style-type: none"> • Overview of monitoring results for each conservation project (Detailed reports are included in Appendix A)
5. Next Year's Habitat Monitoring Report	<ul style="list-style-type: none"> • Overview of next year's anticipated habitat monitoring
<u>Appendices</u>	
Appendix A	Conservation Project Monitoring Reports
Appendix B	Monitoring Status and Proposed Monitoring Schedule

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VFPA proposed changes dated April 7, 2017 September 26-18, 2017

ANNEX E

EXISTING PROJECTS

The conservation projects that are identified herein represent the status of the Habitat Bank and projects planned for the Habitat Bank as of the Effective Date of this Arrangement.

Table 1 – Conservation projects currently deposited in the Habitat Bank

Table 2 – Conservation projects that have been proposed by VFPA and accepted by DFO as appropriate for development and deposit into the Habitat Bank

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VFPA proposed changes dated April 7, 2017 September 26/28, 2017

Table 1.0 -- Conservation Projects Deposited to VFPA Habitat Bank

No.	SITE	LOCATION	BANKED AREA (m ²)	STATUS
1.	Salt Marsh Restoration – TFN (3.1 & 3.2)	Delta (Tsawwassen)	6,635 m ² (salt marsh)	<ul style="list-style-type: none"> • Work is complete • Monitoring is in progress
2.	Salt Marsh Restoration - Boundary Bay (3.3, 3.4 & 3.5)	Delta (Boundary Bay)	56,357 m ² (salt marsh)	<ul style="list-style-type: none"> • Work is complete • Monitoring is in progress
3.	Glenrose Tidal Marsh	Delta	10,778 m ² (tidal freshwater marsh)	<ul style="list-style-type: none"> • Work is complete • Monitoring is in progress
4.	Riverfront Park Tidal Marsh	Vancouver	1,481 m ² (brackish marsh)	<ul style="list-style-type: none"> • Work is complete • Monitoring is in progress
5.	Gladstone Park Tidal Marsh	Vancouver	3,181 m ² (brackish marsh)	<ul style="list-style-type: none"> • Work is complete • Monitoring is in progress
6.	Timberland Basin Habitat	Surrey	1,146 m ² / 2,777 m ² (tidal freshwater marsh / tidal freshwater mudflat)	<ul style="list-style-type: none"> • Work is complete • Monitoring is in progress

VFPA proposed changes dated April 7, 2017 ~~September 26~~ 2017

Table 2.0 -- *Conservation Projects Proposed by VFPA and accepted by DFO as appropriate for the Habitat Bank*

No.	SITE	LOCATION	APPROX. GROSS AREA (ha.)	STATUS
1.	New Brighton Park Shoreline Habitat Restoration Project	Vancouver	~1.5 ha	• Under construction
2.	Polygon Cates Landing Habitat Restoration	North Vancouver	~1.0 ha	• Under construction
3.	Tsawwassen Eelgrass Project	Delta	~4.3 ha	• Permitting and approvals in progress
4.	South Arm Jetty Tidal Marsh Project	Richmond	~44.0 ha	• Permitting and approvals in progress
5.	Westham Island / Canoe Pass Tidal Marsh Project	Ladner	~4.0 ha	• Permitting and approvals in progress
6.	McDonald Tidal Marsh Project	Richmond	~2.8 ha	• Permitting and approvals in progress
7.	Point Grey Tidal Marsh Project	Vancouver	~41.0 ha	• To be advanced in future years
8.	Steveston Island Tidal Marsh Project	Richmond (Steveston)	~6.5 ha	• To be advanced in future years

Commented [ST23]: Status?? May need a caveat w/in agreement if these have not yet been "accepted" by DFO to date (i.e., pending review, or other).

From: Rose, Alwyn
Sent: Friday, March 9, 2018 6:49 AM
To: Thorpe, Suzanne
Subject: FW: VFPA Habitat Banking

Categories: Important

FYI

From: Rose, Alwyn
Sent: February 2, 2017 10:28
To: Nutton, Byron
Cc: Phelps, Anne
Subject: RE: VFPA Habitat Banking

thanks

From: Nutton, Byron
Sent: February 1, 2017 17:37
To: Rose, Alwyn
Subject: FW: VFPA Habitat Banking

As discussed, please see below for the summary of DFO/VFPA discussion in December regarding habitat banking.

Thanks again for your time,

Byron

From: Webb, Cheryl
Sent: 2016–December-15 7:21 PM
To: Nutton, Byron
Cc: Fanos, Brad; Magnan, Alain
Subject: RE: VFPA Habitat Banking

Thanks Byron, those are exactly the issues raised by PoV in our call this am, so thank you.

As it related to issues 3 and 4, Nick indicated that they were likely resolvable. He supported a longer term agreement with a clause to consider legislative and policy changes.

He indicated that issues 1&2 were a little more difficult, inter-related and required further consideration. He acknowledged that PoV was a leader in the country on these issues. He expressed concern that we need to be in a position to ensure that any offsets that are attributed to third parties are sustainable and are not later turned over to further development. The long term viability and integrity of any banking and offsetting was essential for DFO and integral to any habitat banking arrangement. The PoV seemed to understand the last two point, but we will need to see how that translates into their position as we negotiate the arrangement moving ahead.

Cheryl

From: Nutton, Byron
Sent: Tuesday, December 13, 2016 3:52 PM
To: Webb, Cheryl <Cheryl.Webb@dfo-mpo.gc.ca>
Subject: VFPA Habitat Banking

Hi Cheryl,

As discussed, I met with VFPA last week regarding renewal of their existing Habitat Banking Agreement. This was the first meeting since the release of the Interim Guidance document so things may evolve, but at this point the 4 key areas of focus for clarification (i.e. we anticipate some challenges) are as follows:

Use of credits by third parties

- The Interim Guide indicates that habitat credits can only be used by the proponent responsible for implementation of the bank.
- VFPA insists that they require the ability to transfer credits to offset tenant and/or third party-led infrastructure projects - this provision exists in VFPA's current Agreement.
- They also suggest that this would likely be a key issue to other port authorities and other proponents with similar jurisdictional oversight.
- Apparently this item was discussed between VFPA and Nick Winfield in October 2015 in Ottawa.

Land tenure

- The Interim Guide indicates that the land tenure requirements for habitat banking sites would be similar to the requirements for sites used for project specific offsetting (e.g. conventional offsetting).
- VFPA feels that there may be inconsistency between practice and policy with regard to tenure for sites used for project specific offsetting.
- VFPA is seeking further clarification on this item.

Duration of Agreement

- The Interim Guide outlines a defined effective period for an Agreement (e.g. it includes an expiration date).
- The existing agreement is effective for 5 years, which VFPA indicates was intended as a pilot/trial and are now looking for a long-term arrangement (10-20 years).
- Based on the wording in the document (i.e. Interim Guidance, Pilot Projects) I am uncertain of the intention with respect to what would be considered a reasonable length.

Timelines & resources to execute the new Agreement

- A clear schedule, and confirmation of necessary resources (including DFO staff time), to ensure a common understanding of timelines for execution of a new Agreement between VFPA and DFO is critical.
- If a new agreement is not completed by March 31, 2017, VFPA's construction delivery program for 2017 could be delayed and this is a concern to VFPA.

Coming out of the meeting, I agreed to take these items forward within DFO (my plan was to start with Alywn Rose who was the principle author of the Interim Guide), to ensure that I understand the intended interpretation of these items as they are discussed in the Interim Guide. I have a follow-up meeting with VFPA planned for late January.

Byron Nutton, RPBio

A/Team Lead | Chef d'équipe Intérimaire

Partnerships, Standards and Guidelines | Partenariats, Normes et lignes directrices

Fisheries Protection Program | Programme de protection des pêches

Fisheries and Oceans Canada | Pêches et Océans Canada

Pacific Region | Région du Pacifique

250-618-4268

No information has been removed or severed from this page

From: Thorpe, Suzanne
Sent: Friday, March 9, 2018 4:30 PM
To: Nutton, Byron
Subject: Habitat Banking Arrangement - comments for your review.
Attachments: 2017-03-08_VFPAproposedchanges_DFO-VFPA-HBA_PSGedits.docx

I have made some notations in the margins and there are some questions for you in the comments as well. I still have some details to go over ... but your thoughts so far would be good. We can discuss in bilat time.

I would like to talk to Jenna from VFPA re: the Indigenous Consultation plan if you are agreeable to that. Based on my FAR experience, I think I may have some good advice for them.

Suzanne Thorpe

Partnerships, Standards and Guidelines/ Partenariats, normes et lignes directrices
Fisheries Protection Program/ Programme de protection des pêches
Ecosystem Management Branch / Direction de la gestion des écosystèmes
Fisheries and Oceans Canada (DFO), Pacific Region/ Pêches et Océans Canada, Région du Pacifique
Government of Canada/ Gouvernement du Canada
200-401 Burrard Street, Vancouver BC V6C 3S4 (13th Floor)/ 401 Burrard Street, bureau 200, Vancouver (C.-B.) V6C 3S4
Telephone: (604) 666.3512



Habitat Enhancement Program

Indigenous Engagement Work Plan for Vancouver Fraser Port Authority's and Fisheries and Oceans Canada's Habitat Bank Arrangement

Rev 1 - May 14, 2018

1. Overview and Purpose

Vancouver Fraser Port Authority (VFPA) currently operates a habitat bank that was created through a formal agreement with Fisheries and Oceans Canada (DFO). This agreement will expire in September 2018 and as such, a new habitat bank agreement between VFPA and DFO is required. It is VFPA's and DFO's intent to enter into a new Habitat Bank Arrangement.

DFO regional representatives require that Indigenous groups be informed of the following:

- the VFPA Habitat Enhancement Program
- the Indigenous engagement and consultation process for projects that fall under the VFPA Habitat Enhancement Program
- VFPA and DFO's intent to enter into a new Habitat Bank Arrangement

This document outlines VFPA and DFO's approach to meet the above-listed requirements. It also identifies the Indigenous groups within the Service Area that will be engaged, proposed engagement activities and reporting, and a schedule with key timing considerations. The proposed schedule for the implementation of this work plan is directly related to the current expiration date of September 2018 for the existing agreement with DFO for VFPA's habitat bank. It is noted that this work plan is not anticipated to be complete until December 2018 and as such, an extension to the existing agreement will be required.

2. Service Area

For the purposes of VFPA's new Habitat Bank Arrangement with DFO, the Service Area will be defined as VFPA's navigational jurisdiction as depicted in Figure 1 below. VFPA may wish to, however, negotiate the development of habitat projects outside of this defined Service Area, should an opportunity be identified.

VFPA and DFO recognize the history and contemporary interests of Indigenous peoples and work to establish and maintain productive relationships through Indigenous engagement, regular communication and to ensure that the protection of fish and fish habitat is considered in the development of the Asia-Pacific Gateway.

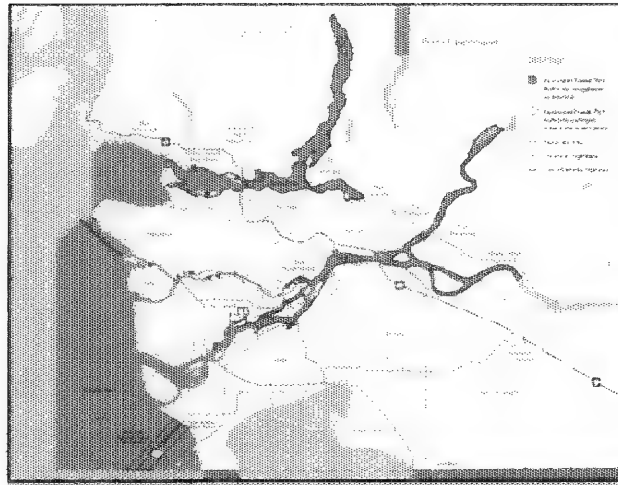


Figure 1

Vancouver Fraser Port Authority operates within the asserted traditional territories of 37 Coast Salish Indigenous groups and in proximity to the treaty settlement lands of the Tsawwassen First Nation.

The following Indigenous groups' asserted traditional territories or treaty lands intersect with the lands and waters managed by VFPA:

Musqueam Indian Band
Squamish Nation
Tsleil-Waututh Nation
Kwikwetlem First Nation
Katzie First Nation
Semiahmoo First Nation
Qayqayt First Nation
Hwlitsum

Sto:lo Nation

- Aitchelitz First Nation
- Leq'a:mel First Nation
- Matsqui First Nation
- Popkum First Nation
- Shxw'ha:y Village First Nation
- Skawahlook First Nation

Sto:lo Tribal Council

- Chawathil First Nation
- Cheam First Nation
- Kwantlen First Nation
- Kwaw-kwaw-Apilt First Nation
- Scowlitz First Nation
- Seabird Island First Nation
- Shxw'ow'hamel First Nation
- Skowkale First Nation
- Soowahlie First Nation
- Squiala First Nation
- Sumas First Nation
- Tzeachten First Nation
- Yakwekwioose First Nation

Hul'qumi'num Treaty Group

- Cowichan Tribes
- Halalt First Nation
- Lake Cowichan First Nation
- Lyackson First Nation
- Penelakut First Nation
- Stz'uminus First Nation

Saanich First Nations

- Pauquachin First Nation
- Tsawout First Nation
- Tsartlip First Nation
- Tseycum First Nation

Treaty Lands

- Tsawwassen First Nation

3. Engagement Process

In order to meet the requirements outlined in **Section 1** above, the following Indigenous engagement activities will be undertaken:

a) Sharing of Information Packages

Information packages will be shared with the Indigenous groups identified in **Section 2**. These packages will include:

- A description of how habitat banks are used to offset serious harm to fisheries
- A description of how habitat credits are deposited into the habitat bank
- A description of how habitat credits may be withdrawn from the habitat bank and the DFO-led Indigenous consultation process associated with this withdrawal
- An overview of VFPA's *Aboriginal Consultation and Engagement Process* for proposed habitat banking projects. This process demonstrates how VFPA intends to engage and consult with Indigenous groups within the identified service area and identifies how Indigenous input and knowledge will be considered throughout the project identification, development, construction and post-construction phases. Opportunities for Indigenous participation (e.g. technical design review, fieldwork, monitoring, contracting, employment and training) will also be identified as well as the process for reporting back to Indigenous groups on feedback received.
- Other relevant materials (e.g. Habitat Enhancement Program presentations, project overview/information sheets, map of Habitat Enhancement Program projects, etc.).

VFPA will undertake follow up communications to confirm receipt of this information by Indigenous groups. VFPA will respond to any questions, comments and feedback from Indigenous groups received in advanced of focused information sessions (see below).

b) Information Sessions

Two information sessions (Lower Mainland and Vancouver Island) will be scheduled and invitations will be sent to the identified Indigenous groups. A proposed agenda will be provided in advance of the sessions. Key components of these information sessions will be as follows:

- Presentation of material included in the Information Packages
- Attendance and support from DFO regional staff
- Questions/feedback from Indigenous groups

Upon completion of the Information Sessions, a one-month response period will be provided to Indigenous groups to provide feedback. It is anticipated that additional information will

be requested by Indigenous groups during this period. VFPA will respond to comments and questions from Indigenous groups and may require the support of DFO for these responses. Due to the time constraints identified within this work plan, timely responses from DFO and VFPA to questions, must be achieved.

c) Meetings and Other Engagement Activities

One-on-one meetings or other types of engagement activities (e.g. presentations to elders and/or leadership, community meetings) will be undertaken if preferred and as requested by Indigenous groups. VFPA has consulted Indigenous groups on projects within the Habitat Enhancement Program since the program's inception and has established ways of working with Indigenous groups. VFPA anticipates that several groups will request one-on-one meetings in lieu of, or in addition to, attendance at information sessions.

d) Comment Period

A formal comment period will be established by VFPA and DFO to provide Indigenous groups a reasonable amount of time to provide feedback on VFPA and DFO's process for Indigenous engagement. The goal of this Comment Period is to allow Indigenous groups an opportunity to provide feedback.

e) VFPA/DFO Follow-up

All feedback received will be considered with responses issued to the Indigenous group. Where appropriate, refinements will be made to VFPA and DFO's process for Indigenous engagement to incorporate this feedback.

f) Reporting

At the conclusion of the engagement period, VFPA will prepare a document titled "*Summary of Indigenous Engagement on VFPA and DFO's Habitat Bank Arrangement*", which will include a description of engagement activities, attendance records for the Information Sessions, list of supplemental information issued to address Indigenous group questions, and a compilation of feedback received. This document will be shared with both DFO and the participating Indigenous groups.

g) Schedule and Time Constraints

The schedule for the implementation of this engagement process is critical to the ongoing development of VFPA's habitat bank. A key time consideration is the expiration of VFPA's existing Working Agreement for Habitat Banking (September 10, 2018).

The following schedule is planned:

Task 1	VFPA to submit final Indigenous engagement work plan (which includes DFO edits) for Habitat Bank Arrangement to DFO	May 14, 2018
---------------	---	--------------

Task 2	DFO to provide written approval that the engagement process (work plan) meets DFO requirements	May 16, 2018
Task 3	Preparation and DFO review of Information Packages	May 17 - July 31, 2018
Task 4	Distribution of Information Packages to Indigenous groups	Aug 1, 2018
Task 5	Information Session No. 1 (Lower Mainland)	Sept 19, 2018
Task 6	Individual engagement sessions (Lower Mainland)	Sept 24-28, 2018
Task 7	Information Session No. 2 (Vancouver Island)	Oct 3, 2018
Task 8	Individual engagement sessions (Vancouver Island)	Oct 8-12, 2018
Task 9	Information Session Comment Period	Oct. 4 to Oct. 24, 2018
Task 10	VFPA follow up with Indigenous groups	Oct 25 – Nov 8, 2018
Task 11	Preparation of <i>Summary of Indigenous Engagement on VFPA and DFO's Habitat Bank Arrangement</i>	Nov 9 – Nov 30, 2018
Task 12	Execution of VFPA and DFO's Habitat Bank Arrangement	Dec 14, 2018

Thorpe, Suzanne

From: Olson, Charlotte <Charlotte.Olson@portvancouver.com>
Sent: Tuesday, March 13, 2018 9:35 AM
To: Ruffo, Gord; Nutton, Byron; Melnick, Loriena; Thorpe, Suzanne; [REDACTED]
Scoble, Jemma
Cc: Assier, Gilles
Subject: RE: March 7 DFO-VFPA HEP Meeting Follow Up - Actions
Attachments: 2018-03-07-03-600-VFPA-HEP-DFO Meeting Summary-Actions-Rev0.pdf

Good morning all,
Please find attached the actions list/notes we have recorded from our recent March 7 meeting in Nanaimo.
Thank you again for the discussion – we look forward to moving these items forward in short order.

Please don't hesitate to respond if anything has been captured in error, or we missed something.

Kind Regards,

Charlotte Olson P.Geo., PMP
Project Management Specialist

CELL: 604.349.4111

From: Ruffo, Gord
Sent: Friday, March 02, 2018 5:32 PM
To: 'Nutton, Byron' <Byron.Nutton@dfo-mpo.gc.ca>; Melnick, Loriena <Lorien.Melnick@dfo-mpo.gc.ca>; 'Thorpe, Suzanne' <Suzanne.Thorpe@dfo-mpo.gc.ca>
Cc: [REDACTED]; Olson, Charlotte <Charlotte.Olson@portvancouver.com>; Scoble, Jemma <Jemma.Scoble@portvancouver.com>
Subject: Agenda for March 7 Meeting

Byron, Loriena, Suzanne

Attached is the proposed Agenda for our March 7 meeting in your Nanaimo office. We are looking forward to our discussions and we appreciate this opportunity to discuss the details related to our new "Habitat Bank Arrangement".

I have also included, for your reference, our proposed "Aboriginal Consultation and Engagement Process" which we provided for your review following our September 2017 meeting.

Gord Ruffo P.Eng.
Program Manager
Habitat Enhancement Program

<< File: 2017-09-25-03-600-VFPA HEP Aboriginal Engagement Summary for DFO-DRAFT-Rev0.pdf >>

Vancouver Fraser Port Authority
100 The Pointe, 999 Canada Place
Vancouver, B.C. Canada V6C 3T4

s.19(1)

P: 604.665.9018 | CELL: 604.202.8022

portvancouver.com

<< File: 2018-03-07-03-600-VFPA-AGENDA-VFPA and DFO Liaison Meeting_No 44-Rev0.pdf >> << OLE Object: Picture (Device Independent Bitmap) >>

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MEETING SUMMARY/ACTIONS: DFO/VFPA Regular Liaison Meeting
DATE: March 7, 2018

LOCATION: Nanaimo DFO Office

NEXT MEETING – April 2018, date TBC

ATTENDEES:
DFO Representatives:

 Byron Nutton (BN), DFO
 Loriga Melnick (LN), DFO
 Suzanne Thorpe (ST), DFO

Habitat Enhancement Program/VFPA Representatives:

 Gord Ruffo, VFPA (GR); Charlotte Olson, VFPA (CO); Jemma Scoble, VFPA (JS)
 Hemmera

Charlotte Olson & Gord Ruffo led the meeting following the March 7, 2018 Agenda.

CURRENT MEETING ACTIONS (March 7/18 Meeting):

No.	DESCRIPTION:	ACTION BY:	ACTION DUE DATE:	COMMENTS:
1.	VFPA to provide DFO a description (scope and timeline) of proposed Indigenous engagement on the draft VFPA-DFO habitat bank Arrangement (as requested by DFO)	VFPA (JS)	March 21/18	VFPA has prepared a September 2017 document describing VFPA's approach to consultation and engagement on HEP. DFO expectations were communicated to VFPA at this March 7/18 meeting.
2.	DFO (BN) to review and confirm above approach meets DFO expectations, per DFO request in June 30, 2017 letter to VFPA	DFO (BN)	April 4/18	DFO acknowledged representatives/resources would be available to participate in VFPA-led engagement on the Arrangement in the coming months, and DFO acknowledged the short time frame before current Agreement expiry.
3.	VFPA to lead, and DFO to participate in appropriate engagement on VFPA's draft habitat bank Arrangement	VFPA DFO	April to September 2018	VFPA expressed that a long-term Arrangement is the priority. Goal is to complete engagement by September 2018, to facilitate signing of a new long-term habitat banking Arrangement.

Habitat Enhancement Program

No.	DESCRIPTION:	ACTION BY:	ACTION DUE DATE:	COMMENTS:
4.	DFO (BN) to follow up with Cheryl Webb and Al Magnan and confirm a letter extension to VFPA's current Working Agreement (if #3 above is not achievable by Sept 2018)	DFO (BN)	April 30/18	As a contingency plan to address the risk of not achieving Item #4 above, DFO is to provide a suitable length extension letter to existing VFPA Working Agreement, to support VFPA's advancement of habitat projects and investment in the program. This is critical to VFPA.
5.	VFPA to review and confirm description of 'geographic service area' per current draft Arrangement	VFPA (CO/GR)	March 21/18	VFPA to respond to DFO.
6.	DFO (BN/ST) to send VFPA formal comments on Sept 26/17 version of draft Arrangement provided to DFO for comment	DFO (ST)	March 16/18	ST to send by email to VFPA (CO/GR) by March 16/18.
7.	DFO (BN) review VFPA's 2017 Annual Reports submitted to DFO. Confirm current Dec 31/17 bank ledger totals, and acknowledge by letter (or equivalent) to VFPA the 2017 habitat credit deposit for New Brighton Park	DFO (BN)	April 15/18	BN to provide acknowledgement (in writing) to VFPA of deposit of New Brighton Park habitat credits to VFPAs habitat bank in 2017; previous deposit process with Holly Pulvermacher (DFO) included a letter issued by DFO to VFPA confirming habitat bank credit totals as reported in Annual Report.
8.	VFPA to prepare Project Confirmation Document for Maplewood Marine Restoration Project, and submit to DFO (BN) for review and confirmation	VFPA (CO/GR)	Target by April 30/18	Process is consistent with past VFPA habitat projects.

Thorpe, Suzanne

From: Nutton, Byron
Sent: Wednesday, March 14, 2018 10:19 AM
To: Thorpe, Suzanne
Subject: FW: VFPA Habitat Bank
Attachments: VFPA Habitat Banking Agreement.pdf

Importance: High

From: Nutton, Byron
Sent: 2017-June-30 12:03 PM
To: Olson, Charlotte <Charlotte.Olson@portvancouver.com> (Charlotte.Olson@portvancouver.com); Ruffo, Gord (Gord.Ruffo@portvancouver.com)
Subject: VFPA Habitat Bank
Importance: High

Hi Gord and Charlotte,

Please see the attached letter that was sent by Cheryl Webb to Robin Sylvester just a few minutes ago, granting a one-year extension to the current working agreement.

As you will see, some of the key items we have discussed are mentioned specifically in the letter. I also have updates on a few of the more minor issues and look forward to meeting with you to discuss those as well.

I understand you may be coming over to Nanaimo on July 13th for a meeting with a larger group to discuss Centerm/Cate's Landing. Perhaps we could plan to meet either before or after that session to discuss the agreement?

I am out of the office until Wednesday, July 5th but have blocked out the whole day on the 13th to ensure that I am available, so if you want to make travel arrangements before we have a chance to talk please do.

Otherwise, I look forward to touching bases with you next week to set something up.

Cheers,

Byron Nutton, RPBio

A/Team Lead | Chef d'équipe Intérimaire
Partnerships, Standards and Guidelines | Partenariats, Normes et lignes directrices
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Canada

Pêches et Océans
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Suite 200 – 401 Burrard Street
Vancouver, British Columbia
V6C 3S4

Région du Pacifique
Pièce 200 – 401 rue Burrard
Vancouver (C.-B.)
V6C 3S4

Your file / Votre référence

Our file / Notre référence

12-HPAC-00002

JUN 30 2017

Robin Silvester, President and CEO
Vancouver Fraser Port Authority
100 The Pointe
999 Canada Place
Vancouver, British Columbia
V6C 3T4
Robin.Silvester@portvancouver.com

Dear Robin Silverster:

Subject: Vancouver Fraser Port Authority Habitat Banking Agreement

As you are aware, Fisheries and Oceans Canada (DFO) and the Vancouver Fraser Port Authority (VFPA) entered into a *Working Agreement concerning Procedures for the Development and Operation of the Port Metro Vancouver Habitat Bank*, dated July 31, 2012 and signed and executed on September 10, 2012. Since that time DFO and VFPA have operated under the conditions of that agreement with respect to VFPA's habitat banking initiative.

For some time now, DFO and VFPA have been in discussion regarding the renewal of that agreement and in particular since the release of the DFO *Fisheries Protection Program's Interim Guide to Proponent-led Habitat Banking* (Interim Guide) in October 2016. In this regard, it is my understanding that DFO and VFPA staff working on this file have made some progress on drafting proposed terms and conditions for a renewed agreement.

It is also my understanding that several challenges have been identified with respect to the alignment of the terms and conditions of the existing agreement, the guidance and templates in the Interim Guide, and the aspiration of VFPA with respect to a renewed agreement. In particular, the inclusion of terms and conditions related to third-party engagement and use of credits presents a challenge that needs to be fully considered.

In addition, the Interim Guide provides for engagement with potentially affected Indigenous groups during the establishment of Habitat Banking Arrangements. Such engagement is consistent with the Government of Canada's reconciliation agenda and requires careful consideration. This is particularly important given the aspirations of VFPA with respect to expanding habitat banking operations, in terms of construction of new conservation projects as well as consideration of a broader geographic service area.

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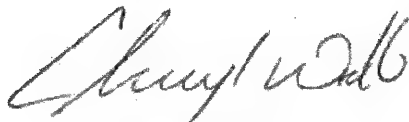
Canada

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With the term of the existing agreement set to expire in the coming months, I believe it is in the best interest of both parties to grant a one-year extension to the existing agreement such that items of interest, including those identified above, can be given due consideration as we work towards the development of a renewed agreement that meets VFPA long-term aspirations.

In this regard, please consider this letter as confirmation of a one-year extension of the existing *Working Agreement concerning Procedures for the Development and Operation of the Port Metro Vancouver Habitat Bank*, to a new expiry date of September 10, 2018.

Regards,



Cheryl Webb
Regional Director
Ecosystems Management Branch
Pacific Region

Thorpe, Suzanne

From: Nutton, Byron
Sent: Wednesday, March 14, 2018 1:23 PM
To: Thorpe, Suzanne
Subject: VFPA Arrangement
Attachments: 2017-03-14_DFO_edits_v1_no_Annex.docx

Hey Suzanne,

Please have a look at this version and let me know if you have any further comments.

Byron Nutton, RPBio

A/Team Lead | Chef d'équipe Intérimaire
Partnerships, Standards and Guidelines | Partenariats, Normes et lignes directrices
Fisheries Protection Program | Programme de protection des pêches
Fisheries and Oceans Canada | Pêches et Océans Canada
Pacific Region | Région du Pacifique

250-618-4268

Habitat Bank Arrangement:

PORT OF VANCOUVER HABITAT BANK

Between

VANCOUVER FRASER PORT AUTHORITY

AND

HER MAJESTY THE QUEEN IN RIGHT OF CANADA, as represented by the Minister of Fisheries and Oceans on behalf of Fisheries and Oceans Canada ("DFO")

●XXXXXX, 2018

PATH Number: [INSERT PATH NUMBER]

1. INTRODUCTION

This document sets out the principles of the mutual understanding between **Vancouver Fraser Port Authority (“VFPA”)** and Fisheries and Oceans Canada (“DFO”) (hereafter referred to as “the Participants”) for the **Port of Vancouver Habitat Bank (“Habitat Bank”)**.

WHEREAS:

- a. Fisheries and Oceans Canada (DFO) is responsible for the administration of the *Fisheries Act*, more specifically the fisheries protection provisions including Sections 6, 20, 21, 35, 37, and 38 related to the conservation and protection of Canada's marine and freshwater fisheries resources and their habitats from the impact of human activities. The purpose of the fisheries protection provisions, as set out in Section 6.1 of the *Fisheries Act*, is to provide for the sustainability and ongoing productivity of commercial, recreational and Aboriginal fisheries;
- b. DFO is responsible for the administration of the *Species at Risk Act* ("SARA") with respect to aquatic species other than those individuals in or on federal lands administered by the Parks Canada Agency and, in that capacity, the Minister of Fisheries and Oceans has powers and duties with respect to protecting aquatic species listed under that Act and providing for their recovery;
- c. The Fisheries Protection Policy Statement's goal is to promote compliance with the *Fisheries Act* in order to contribute to the purpose set out in section 6.1 of the *Fisheries Act*;
- d. This Arrangement does not commit DFO to the authorization of any future work, undertaking or activity requiring an authorization under paragraph 35(2)(b) of the *Fisheries Act*, or permit any future project requiring a permit under sections 73 and 74 of the *Species at Risk Act*. All future projects will be reviewed on their own merit and a decision on whether to authorize or permit will be made independent of the existence of a habitat bank arrangement. This Arrangement, and any related communications between DFO and VFPA do not constitute a representation or commitment of any kind to VFPA regarding authorization of any future projects by DFO. This Arrangement, and any related communications, moreover does not constitute a commitment that any habitat credits that may be issued to a proponent will be acceptable in the context of future applications for *Fisheries Act* authorizations or SARA permits.
- e. VFPA is a port authority established by the Government of Canada pursuant to the *Canada Marine Act* and is accountable to the federal Minister of Transport. VFPA has a mandate to facilitate Canada's trade objectives, ensuring goods are moved safely, while protecting the environment and considering local communities. In fulfilling the mandate, VFPA carries out a variety of duties, including infrastructure development to support growth and efficient operations. The Habitat Bank can support such infrastructure development by a proponent when habitat credits are acceptable in the context of future *Fisheries Act* authorizations or SARA permits.

DFO proposed changes dated March 14, 2018

- f. The Participants entered into a Working Agreement dated July 31, 2012 (“Working Agreement”) relating to the procedures for development and operation of a VFPA-led habitat bank for a 5 year trial period which was extended by the Participants to September 10, 2018;
- g. VFPA has undertaken several habitat creation and enhancement projects in consultation with DFO pursuant to the Working Agreement, which are included in Annex E (“Existing Projects”); and
- h. This Arrangement will replace the Working Agreement and the Existing Projects will be managed pursuant to this Arrangement.

THEREFORE, the Participants agree to the following arrangement (“Arrangement”).

2. PURPOSE

To support VFPA in fulfilling its mandate (referred to in paragraph e above) by facilitating infrastructure development when habitat credits from the Habitat Bank can be applied to meet future offsetting requirements for such development. VFPA may enter into agreements with third parties to allow withdrawal of habitat credits, as defined by this Arrangement.

To replace the Working Agreement with this Arrangement and to establish revised principles for the continuation and management of the Habitat Bank by:

- establishing a working relationship between the Participants based on trust, accountability and information sharing;
- establishing a clear understandable Arrangement for managing the Habitat Bank; and
- increasing certainty in the administration of the Habitat Bank.

3. OTHER GENERAL INFORMATION

The activities carried out under this Arrangement will be consistent with:

- *Fisheries Protection Policy Statement* (2013);
- *Fisheries Productivity Investment Policy: A Proponent’s Guide to Offsetting* (2013);
- *Interim Fisheries Protection Program’s Guide to Proponent-led Habitat Banking* (October, 2016) (“Guide”);
- *any relevant Species at Risk Recovery Strategies and management considerations*; and
- *any relevant Fisheries Management Objectives*.

4. SCOPE

DFO proposed changes dated March 14, 2018

The scope of this Arrangement is limited to the continuation and administration of the Habitat Bank described in Annex A, and including conservation projects proposed in accordance with Annex B and the Existing Projects (described in Annex E).

5. ROLES AND RESPONSIBILITIES

The roles and responsibilities of the VFPA are:

- Jointly managing the performance of the Arrangement with DFO;
- Identifying designing, constructing, monitoring, maintaining, and protecting conservation project sites;
- Meeting all other applicable federal, territorial, provincial and municipal requirements that apply to conservation projects;
- Reporting on performance of conservation projects;
- Accurately maintaining a copy of the habitat credit ledger; and
- Preparing and submitting Progress Reports for the Arrangement.

The roles and responsibilities of DFO are:

- Jointly managing the performance of the Arrangement with VFPA;
- Reviewing, providing advice and confirming conservation project proposals;
- Reviewing Progress Reports, validating habitat credit balances in the habitat credit ledger, and processing habitat credit ledger transactions;
- Verifying the reported results of conservation project performance in the Progress Reports;
- When appropriate, carrying out direct monitoring (i.e., a site visit to gather and analyse samples or information in order to directly verify compliance and effectiveness) and/or carrying out indirect monitoring (i.e., an assessment of information provided in Progress Reports to verify compliance and effectiveness) of conservation project sites; and
- Reviewing and processing Progress Reports of the Arrangement.

The Participants shall fulfill their responsibilities under this Arrangement in accordance with the provisions of federal, provincial and territorial laws and regulations that govern their activities. Should a Participant not be able to perform a function under this Arrangement, the affected Participant will immediately contact the other signatories of this Arrangement so that early resolution can be reached.

6. MANAGEMENT PROVISIONS

This Arrangement establishes the following management provisions for the administration of the Habitat Bank:

- The accountability lies with the office of signatories of the Arrangement: Director, Infrastructure Sustainability, Vancouver Fraser Port Authority and Regional Director, Ecosystems Management, DFO Pacific Region.

DFO proposed changes dated March 14, 2018

- The day to day administration of the Arrangement will be carried out by: Program Manager, Habitat Enhancement Program, Vancouver Fraser Port Authority and Team Lead, Partnerships, Standards and Guidelines, Fisheries Protection Program, DFO Pacific Region.

7. ADMINISTRATION OF THE HABITAT BANK ARRANGEMENT

- Specific details related to the principles of the administration and operation of the Habitat Bank are included in ANNEX A;
- Conservation projects that are proposed for development are to be submitted for review and confirmation by DFO using the “Project Confirmation” template set out in ANNEX B;
- Habitat credits held within the Habitat Bank shall be tracked using the “Habitat Credit Ledger” template and frequency set out in and described in ANNEX C;
- Progress Reports shall be prepared and submitted annually in accordance with the requirements of ANNEX D; and
- Existing Projects that were either constructed or proposed for construction under the terms of the Working Agreement are identified in ANNEX E.

8. SHARING OF INFORMATION

While this Arrangement is in effect and at all times thereafter, each of DFO and VFPA and any officers, employees or agents of each of them shall treat all information, data, documents, reports and materials acquired or to which access have been given in the course of, or incidental to, the performance of this Arrangement as confidential, subject to the federal *Access to Information Act* and the *Privacy Act*. With the exception of the Arrangement, the annexes to the Arrangement and annual Progress Reports, which VFPA may disclose from time to time, the Participants shall not disclose or permit to be disclosed such information, data, documents, reports and materials, unless:

- the Participants agree to the disclosure;
- the disclosure is part of the application and review process of VFPA’s Project and Environmental Review for a proposed conservation project, which would include disclosure of project-specific information, engagement information for public/stakeholder and Indigenous groups and technical content, and the posting of on-line information;
- the disclosure is part of the application and review process by DFO for a proposed development project, which would include disclosure of project-specific information, engagement information for public/stakeholder and Indigenous groups and technical content, and the posting of on-line information;
- the disclosure is part of an application and review process of other regulatory agencies (such as Environment Canada for Disposal at Sea permit) for a proposed conservation project, which would include disclosure only as required by the such agencies;

DFO proposed changes dated March 14, 2018

- the disclosure relates to the sharing of conservation project plans with Indigenous groups as part of the Indigenous Consultation and Engagement Process set out in ANNEX “X”
- the disclosure is to a third party proponent as part of the Habitat Bank Administration as described in Annex A;
- the disclosure is required by law;
- the information was obtained from the public; or
- the information is available to the public.

9. CONSULTATION AND ENGAGEMENT

The Participants will collaborate on an approach to meaningfully engage and consult with Indigenous groups in accordance with the Indigenous Consultation and Engagement Process set out in ANNEX “X”.

Further to Annex “X”, DFO will undertake consultation with potentially affected Indigenous groups when considering the issuance of an Authorization under Section 35(2)(b) of the *Fisheries Act* related to a development project when habitat banking credits are proposed to be used to meet offsetting requirements. NOTE: it might be better to include something to this regard in the Annex and remove this statement from the arrangement itself.

10. DIFFERENCES IN INTERPRETATION AND APPLICATION

The Participants will endeavor to resolve issues regarding the implementation of this Arrangement in a timely manner using mechanisms available to the Participants. Where an issue remains unresolved, the pre-eminent jurisdiction responsible for the matter under consideration will make the final determination and seek concurrence from Director, Infrastructure Sustainability, Vancouver Fraser Port Authority and Regional Director, Ecosystems Management, DFO Pacific Region.

11. PROGRESS REPORTS

The VFPA will prepare progress reports using the form described in Annex D (“Progress Report”) on the achievements and challenges encountered during the reporting period of this Arrangement as it relates to the purposes identified in section 2 of this Arrangement.

The Progress Report should be submitted within 90 calendar days from the conclusion of each year. A year will be considered to run from January 1 to December 31.

The Progress Report will be submitted to the Office of signatories of the Arrangement, Director, Infrastructure Sustainability, Vancouver Fraser Port Authority and Regional Director, Ecosystems Management, DFO Pacific Region, for their concurrence.

All Progress Reports will conform to the requirements set out in ANNEX D.

DFO proposed changes dated March 14, 2018

12. REVIEW

At the end of each five (5) year period during which this Arrangement is in effect, the Regional Director, Ecosystems Management, DFO Pacific Region, will establish a review team consisting of Program Manager, Habitat Enhancement Program, Vancouver Fraser Port Authority and Team Lead, Partnerships, Standards and Guidelines, Fisheries Protection Program, DFO Pacific Region, or an appropriately qualified and mutually agreed to third party to review the effectiveness of activities under this Arrangement. This review team will report to the Regional Director, Ecosystems Management, DFO Pacific Region, within six (6) months of being established.

13. AMENDMENT

The Arrangement may be amended at any time in writing and by mutual consent of the Participants. An amendment will be confirmed by an exchange of letters, signed by the Participants, setting out the amendment and its effective date.

14. FINANCIAL ARRANGEMENT

This Arrangement will not impose any additional financial responsibilities on the Participants, except that each Participant will be responsible for the staff and funding costs it incurs in its own interests, related to the support of the Arrangement.

15. DURATION, WITHDRAWAL AND TERMINATION

This Arrangement is in effect for a period of ten years. VFPA can request renewal of the Arrangement for an additional defined term (of no less than five years) by providing one year's written notice to the other Participant. If this Arrangement is not renewed at the expiration of the term or a renewal, and provided that VFPA is not in breach of this Arrangement, the Participants will continue to apply the terms of this Arrangement to all conservation projects that are either deposited in the Habitat Bank or have been confirmed by DFO in accordance with Annex B.

NOTE: SHOULD WE ADD A CLAUSE RE: RENEWAL OF ANNEXES AS REQUIRED/APPROPRIATE

[NTD: VFPA maintains its preference for a 20-year term for the Arrangement. This duration supports VFPA's significant investment in its habitat bank and provides longer-term assurances for the development of new habitat sites in the future. Should DFO policy change within this 20 year term, the Arrangement can accommodate these changes through its 5 year review process identified in Clause 11 – Review and through the provision for amending the Arrangement identified in Clause 12 – Amendment.]

16. LEGAL DISCLAIMER

This Arrangement is an expression of the mutual intentions of the Participants and is not legally binding or enforceable against them.

DFO proposed changes dated March 14, 2018

17. NOTICE

All notices to be given under this Arrangement shall be in writing and shall be sent by prepaid registered mail or facsimile transmission addressed to the Party entitled to receive the same, or delivered to such party as follows:

- if to VFPA:

Vancouver Fraser Port Authority (VFPA)
100 The Pointe
999 Canada Place
Vancouver, British Columbia
V6C 3T4

Attention: Director, Infrastructure Sustainability
Facsimile: 1.866.212.1688

with a copy to:

Attention: Director, Legal Services
Facsimile: 1.866.665.9062

- if to DFO:

Fisheries and Oceans Canada (DFO)
Pacific Region, Ecosystems Management Branch
Suite 200 – 401 Burrard Street
Vancouver, BC
V6C 3S4

Attention: Regional Director
Facsimile: 604-666-0417

18. GENERAL

VFPA is entering into this Arrangement on its own behalf and not as agent of Her Majesty in Right of Canada.

DFO proposed changes dated March 14, 2018

EFFECTIVE DATE AND SIGNATURE

This Arrangement has been signed by the Regional Director of DFO Pacific Region of Fisheries and Oceans on behalf of Her Majesty the Queen in Right of Canada and by the VFPA on the dates noted below.

SIGNED IN THE PRESENCE OF:

FOR HER MAJESTY THE QUEEN IN RIGHT OF CANADA

Cheryl Webb
Regional Director
Ecosystems Management
DFO Pacific Region

Witness

Date

FOR VANCOUVER FRASER PORT AUTHORITY

Robin Silvester
President and CEO

Witness (as to both)

J. Dean Readman
Corporate Secretary

Date

This Arrangement comes into effect on the date that both Participants have signed above.

Thorpe, Suzanne

From: Nutton, Byron
Sent: Wednesday, March 14, 2018 9:39 AM
To: Thorpe, Suzanne
Subject: VFPA conservation projects
Attachments: 2015-05-15 DFO Confirmation HEP Credits (8 Projects).pdf

Found in the file – confirmation of the 8 projects listed in Table 2 of Annex E.

Byron Nutton, RPBio

A/Team Lead | Chef d'équipe Intérimaire
Partnerships, Standards and Guidelines | Partenariats, Normes et lignes directrices
Fisheries Protection Program | Programme de protection des pêches
Fisheries and Oceans Canada | Pêches et Océans Canada
Pacific Region | Région du Pacifique

250-618-4268

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Fisheries and Oceans Pêches et Océans
Canada Canada

3190 Hammond Bay Road
Nanaimo, BC
V9T 6N7

2015-05-15

PATH No.: 12-HPAC-00002

Mr. Gord Ruffo
Program Manager,
Habitat Enhancement Program
Port Metro Vancouver
100 The Pointe, 999 Canada Place
Vancouver BC
V6C 3T4

Dear Mr. Ruffo:

**Subject: Confirmation of Deposit of Habitat Credits into the Port Metro Vancouver
Habitat Enhancement Program (Habitat Bank)**

The Fisheries Protection Program of Fisheries and Oceans Canada (DFO) received the following Project Confirmation documents from Port Metro Vancouver (PMV); signed April 16th, 2015:

1. Polygon Cates Landing Habitat Restoration
2. McDonald Tidal Marsh
3. Tsawwassen Eelgrass
4. Point Grey Tidal Marsh
5. Steveston Tidal Marsh
6. South Arm Jetty Tidal Marsh
7. Westham Island / Canoe Pass Tidal Marsh
8. New Brighton Park – Habitat Enhancement Project

DFO has reviewed the above Project Confirmation submissions as per our Departments obligations outlined in the *Working Agreement Concerning Procedures for Development and Operation of the Port Metro Vancouver Habitat Bank* between Vancouver Fraser Port Authority and Fisheries and Oceans Canada dated July 31st 2012 ("The Working Agreement").

DFO acknowledges that the projects were developed by the PMV Habitat Enhancement Program in accordance with the *Working Agreement*. DFO further confirms that:

- if constructed as proposed, and



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Canada Canada

- upon confirmation that they are functioning as intended,

the above listed projects would conform with the Fisheries Productivity Investment Policy ("The Policy") as habitat development and/or restoration projects that may be deposited into a Habitat Bank.

The Project Confirmation documents detail only general accounts of the total habitat area of existing and proposed habitat types. Upon completion of the projects, PMV will complete further field assessments, and undertake the development of detailed As-Built drawings that will provide greater clarity as to the total habitat created (by individual habitat types). This post-construction documentation, along with the detailed existing site conditions, will be used by PMV to determine the net increase in productivity (post-construction productivity minus existing pre-construction productivity) and proposed habitat credit for DFO's consideration and confirmation for deposit into the Habitat Bank.

The value of any credit will be subject to further confirmatory field monitoring immediately prior to the withdrawal of any credits from the Habitat Bank.

PMV is reminded that:

1. The development of a project intended to restore or create fish habitat is not exempt from the provisions of the federal Fisheries Act or associated regulatory processes and procedures.
2. PMV is solely responsible for seeking any regulatory review, and/or obtaining any approvals, permits or authorizations from any federal or provincial regulatory body, including DFO, as may be necessary to permit the project to proceed as proposed.
3. This letter may not be construed as affording a regulatory review pursuant to the federal Fisheries Act nor confirmation that a regulatory review is not required.
4. This letter may not be construed as authorizing serious harm to commercial, recreational or aboriginal fisheries, or fish that support such fisheries, that may arise directly or indirectly as a result of the proposed works, undertakings or activities.
5. The creation of a Habitat Bank does not in and of itself constitute pre-approval or Authorization for any future serious harm as defined by the Fisheries Act.
6. PMV acknowledges that it is solely responsible for the design and construction of the proposed projects.

Development of future projects for inclusion in the Habitat Bank, or withdrawal of credits from the Habitat Bank as offsetting for future serious harm shall be done in accordance with the



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Canada Canada

Fisheries Productivity Investment Policy and the Applications for Authorization under Paragraph 35(2)(b) of the Fisheries Act Regulations.

If you have any questions, please contact the undersigned.

Yours sincerely,

- *Holly Pulvermacher* -

Holly Pulvermacher

Senior Fisheries Protection Biologist

Fisheries and Oceans Canada

Cc: Alain Magnan, Regulatory Manager – Fisheries Protection Program.
 Tola Cooper, Senior Biologist – Fisheries Protection Program
 Tessa Richardson, Habitat Biologist – Fisheries Protection Program

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Thorpe, Suzanne

From: Thorpe, Suzanne
Sent: Thursday, March 15, 2018 3:04 PM
To: Nutton, Byron
Subject: VFPA Arrangement - minor edits for consideration
Attachments: 2017-03-15_VFPA_DFO_edits_v1(ST_endofday).docx

Hi –

I reviewed: some minor edits included. Also, most legal documents have the number written out in text and print (i.e., ten (10)) so I stuck with that format throughout but not for the Annexes.

S.

Suzanne Thorpe

Partnerships, Standards and Guidelines/ Partenariats, normes et lignes directrices
Fisheries Protection Program/ Programme de protection des pêches
Ecosystem Management Branch / Direction de la gestion des écosystèmes
Fisheries and Oceans Canada (DFO), Pacific Region/ Pêches et Océans Canada, Région du Pacifique
Government of Canada/ Gouvernement du Canada
200-401 Burrard Street, Vancouver BC V6C 3S4 (13th Floor)/ 401 Burrard Street, bureau 200, Vancouver (C.-B.) V6C 3S4
Telephone: (604) 666.3512

DFO proposed changes dated March 15, 2018

Habitat Bank Arrangement:

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PORT OF VANCOUVER HABITAT BANK

Between

VANCOUVER FRASER PORT AUTHORITY

AND

HER MAJESTY THE QUEEN IN RIGHT OF CANADA, as represented by the Minister of
Fisheries and Oceans on behalf of Fisheries and Oceans Canada ("DFO")

•XXXXXX, 2018

PATH Number: [INSERT PATH NUMBER]

DFO proposed changes dated March 15, 2018

1. INTRODUCTION

This document sets out the principles of the mutual understanding between **Vancouver Fraser Port Authority ("VFPA")** and Fisheries and Oceans Canada ("DFO") (hereafter referred to as "the Participants") for the **Port of Vancouver Habitat Bank ("Habitat Bank")**.

WHEREAS:

- a. Fisheries and Oceans Canada (DFO) is responsible for the administration of the *Fisheries Act*, more specifically the fisheries protection provisions including Sections 6, 20, 21, 35, 37, and 38 related to the conservation and protection of Canada's marine and freshwater fisheries resources and their habitats from the impact of human activities. The purpose of the fisheries protection provisions, as set out in Section 6.1 of the *Fisheries Act*, is to provide for the sustainability and ongoing productivity of commercial, recreational and Aboriginal fisheries;
- b. DFO is responsible for the administration of the *Species at Risk Act* ("SARA") with respect to aquatic species other than those individuals in or on federal lands administered by the Parks Canada Agency and, in that capacity, the Minister of Fisheries and Oceans has powers and duties with respect to protecting aquatic species listed under that Act and providing for their recovery;
- c. The Fisheries Protection Policy Statement's goal is to promote compliance with the *Fisheries Act* in order to contribute to the purpose set out in section 6.1 of the *Fisheries Act*;
- d. This Arrangement does not commit DFO to the authorization of any future work, undertaking or activity requiring an authorization under paragraph 35(2)(b) of the *Fisheries Act*, or permit any future project requiring a permit under sections 73 and 74 of the *Species at Risk Act*. All future projects will be reviewed on their own merit and a decision on whether to authorize or permit will be made independent of the existence of a habitat bank arrangement. This Arrangement, and any related communications between DFO and VFPA do not constitute a representation or commitment of any kind to VFPA regarding authorization of any future projects by DFO. This Arrangement, and any related communications, moreover does not constitute a commitment that any habitat credits that may be issued to a proponent will be acceptable in the context of future applications for *Fisheries Act* authorizations or SARA permits.
- e. VFPA is a port authority established by the Government of Canada pursuant to the *Canada Marine Act* and is accountable to the federal Minister of Transport. VFPA has a mandate to facilitate Canada's trade objectives, ensuring goods are moved safely, while protecting the environment and considering local communities. In fulfilling the mandate, VFPA carries out a variety of duties, including infrastructure development to support growth and efficient operations. The Habitat Bank can support such infrastructure development by a proponent when habitat credits are acceptable in the context of future *Fisheries Act* authorizations or SARA permits.

DFO proposed changes dated March 15, 2018

- f. The Participants entered into a Working Agreement dated July 31, 2012 (“Working Agreement”) relating to the procedures for development and operation of a VFPA-led habitat bank for a five (5) year trial period which was extended by the Participants to September 10, 2018;
- g. VFPA has undertaken several habitat creation and enhancement projects in consultation with DFO pursuant to the Working Agreement, which are included in Annex E (“Existing Projects”); and
- h. This Arrangement will replace the Working Agreement and the Existing Projects will be managed pursuant to this Arrangement.

THEREFORE, the Participants agree to the following arrangement (“Arrangement”).

2. PURPOSE

To support VFPA in fulfilling its mandate (referred to in paragraph e above) by facilitating infrastructure development when habitat credits from the Habitat Bank can be applied to meet future offsetting requirements for such development. In this regard VFPA may enter into agreements with third parties to allow withdrawal of habitat credits, as defined by this Arrangement.

To replace the Working Agreement with this Arrangement and to establish revised principles for the continuation and management of the Habitat Bank by:

- establishing a working relationship between the Participants based on trust, accountability and information sharing;
- establishing a clear understandable Arrangement for managing the Habitat Bank; and
- increasing certainty in the administration of the Habitat Bank.

3. OTHER GENERAL INFORMATION

The activities carried out under this Arrangement will be consistent with:

- *Fisheries Protection Policy Statement* (2013);
- *Fisheries Productivity Investment Policy: A Proponent's Guide to Offsetting* (2013);
- *Interim Fisheries Protection Program's Guide to Proponent-led Habitat Banking* (October, 2016) (“Guide”);
- *any relevant Species at Risk Recovery Strategies and management considerations*; and
- *any relevant Fisheries Management Objectives*.

4. SCOPE

DFO proposed changes dated March 15, 2018

The scope of this Arrangement is limited to the continuation and administration of the Habitat Bank described in Annex A, and including conservation projects proposed in accordance with Annex B and the Existing Projects (described in Annex E).

5. ROLES AND RESPONSIBILITIES

The roles and responsibilities of the VFPA are:

- Jointly managing the performance of the Arrangement with DFO;
- Identifying, designing, constructing, monitoring, maintaining, and protecting conservation project sites;
- Meeting all other applicable federal, territorial, provincial and municipal requirements that apply to conservation projects;
- Reporting on performance of conservation projects;
- Accurately maintaining a copy of the habitat credit ledger; and
- Preparing and submitting Progress Reports for the Arrangement.

The roles and responsibilities of DFO are:

- Jointly managing the performance of the Arrangement with VFPA;
- Reviewing, providing advice and confirming conservation project proposals;
- Reviewing Progress Reports, validating habitat credit balances in the habitat credit ledger, and processing habitat credit ledger transactions;
- Verifying the reported results of conservation project performance in the Progress Reports;
- When appropriate, carrying out direct monitoring (i.e., a site visit to gather and analyse samples or information in order to directly verify compliance and effectiveness) and/or carrying out indirect monitoring (i.e., an assessment of information provided in Progress Reports to verify compliance and effectiveness) of conservation project sites; and
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The Participants shall fulfill their responsibilities under this Arrangement in accordance with the provisions of federal, provincial and territorial laws and regulations that govern their activities. Should a Participant not be able to perform a function under this Arrangement, the affected Participant will immediately contact the other signatories of this Arrangement so that early resolution can be reached.

6. MANAGEMENT PROVISIONS

This Arrangement establishes the following management provisions for the administration of the Habitat Bank:

- The accountability lies with the office of signatories of the Arrangement: Director, Infrastructure Sustainability, Vancouver Fraser Port Authority and Regional Director, Ecosystems Management, DFO Pacific Region.

DFO proposed changes dated March 15, 2018

- The day to day administration of the Arrangement will be carried out by: Program Manager, Habitat Enhancement Program, Vancouver Fraser Port Authority and Team Lead, Partnerships, Standards and Guidelines, Fisheries Protection Program, DFO Pacific Region.

7. ADMINISTRATION OF THE HABITAT BANK ARRANGEMENT

- Specific details related to the principles of the administration and operation of the Habitat Bank are included in ANNEX A;
- Conservation projects that are proposed for development are to be submitted for review and confirmation by DFO using the "Project Confirmation" template set out in ANNEX B;
- Habitat credits held within the Habitat Bank shall be tracked using the "Habitat Credit Ledger" template and frequency set out in and described in ANNEX C;
- Progress Reports shall be prepared and submitted annually in accordance with the requirements of ANNEX D; and
- Existing Projects that were either constructed or proposed for construction under the terms of the Working Agreement are identified in ANNEX E,
- Add new ANNEX "X", where appropriate.

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8. SHARING OF INFORMATION

While this Arrangement is in effect and at all times thereafter, each of DFO and VFPA and any officers, employees or agents of each of them shall treat all information, data, documents, reports and materials acquired or to which access have been given in the course of, or incidental to, the performance of this Arrangement as confidential, subject to the federal *Access to Information Act* and the *Privacy Act*. With the exception of the Arrangement, the annexes to the Arrangement and annual Progress Reports, which VFPA may disclose from time to time, the Participants shall not disclose or permit to be disclosed such information, data, documents, reports and materials, unless:

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- the disclosure is part of the application and review process of VFPA's Project and Environmental Review for a proposed conservation project, which would include disclosure of project-specific information, engagement information for public/stakeholder and Indigenous groups and technical content, and the posting of on-line information;
- the disclosure is part of the application and review process by DFO for a proposed development project that would utilize habitat banking credits as offsetting, which would include disclosure of project-specific information, engagement information for public/stakeholder and Indigenous groups and technical content, and the posting of on-line information;
- the disclosure is part of an application and review process of other regulatory agencies (such as Environment Canada for Disposal at Sea permit) for a proposed conservation project, which would include disclosure only as required by the such agencies;

DFO proposed changes dated March 15, 2018

- the disclosure relates to the sharing of conservation project plans with Indigenous groups as part of the Indigenous Consultation and Engagement Process set out in ANNEX “X”
- the disclosure is to a third party proponent as part of the Habitat Bank Administration as described in Annex A;
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The Participants will collaborate on an approach to meaningfully engage and consult with Indigenous groups in accordance with the Indigenous Consultation and Engagement Process set out in ANNEX “X”.

Further to Annex “X”, DFO will undertake consultation with potentially affected Indigenous groups when considering the issuance of an Authorization under Section 35(2)(b) of the *Fisheries Act* related to a development project when habitat banking credits are proposed to be used to meet offsetting requirements. **NOTE: it might be better to include something to this regard in the Annex and remove this statement from the arrangement itself.**

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The Participants will endeavor to resolve issues regarding the implementation of this Arrangement in a timely manner using mechanisms available to the Participants. Where an issue remains unresolved, the pre-eminent jurisdiction responsible for the matter under consideration will make the final determination and seek concurrence from Director, Infrastructure Sustainability, Vancouver Fraser Port Authority and Regional Director, Ecosystems Management, DFO Pacific Region.

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The VFPA will prepare progress reports using the form described in Annex D (“Progress Report”) on the achievements and challenges encountered during the reporting period of this Arrangement as it relates to the purposes identified in section 2 of this Arrangement.

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The Progress Report will be submitted to the Office of signatories of the Arrangement, Director, Infrastructure Sustainability, Vancouver Fraser Port Authority and Regional Director, Ecosystems Management, DFO Pacific Region, for their concurrence.

All Progress Reports will conform to the requirements set out in ANNEX D.

DFO proposed changes dated March 15, 2018

12. REVIEW

At the end of each five (5) year period during which this Arrangement is in effect, the Regional Director, Ecosystems Management, DFO Pacific Region, will establish a review team consisting of Program Manager, Habitat Enhancement Program, Vancouver Fraser Port Authority and Team Lead, Partnerships, Standards and Guidelines, Fisheries Protection Program, DFO Pacific Region, or an appropriately qualified and mutually agreed to third party to review the effectiveness of activities under this Arrangement. This review team will report to the Regional Director, Ecosystems Management, DFO Pacific Region, within six (6) months of being established.

13. AMENDMENT

The Arrangement may be amended at any time in writing and by mutual consent of the Participants. An amendment will be confirmed by an exchange of letters, signed by the Participants, setting out the amendment and its effective date.

14. FINANCIAL ARRANGEMENT

This Arrangement will not impose any additional financial responsibilities on the Participants, except that each Participant will be responsible for the staff and funding costs it incurs in its own interests, related to the support of the Arrangement.

15. DURATION, WITHDRAWAL AND TERMINATION

This Arrangement is in effect for a period of ten (10) years. VFPA can request renewal of the Arrangement for an additional defined term (of no less than five (5) years) by providing one year's written notice to the other Participant. If this Arrangement is not renewed at the expiration of the term or a renewal, and provided that VFPA is not in breach of this Arrangement, the Participants will continue to apply the terms of this Arrangement to all conservation projects that are either deposited in the Habitat Bank or have been confirmed by DFO in accordance with Annex B.

NOTE: SHOULD WE ADD A CLAUSE RE: RENEWAL OF ANNEXES AS REQUIRED/APPROPRIATE

[NTD: VFPA maintains its preference for a 20-year term for the Arrangement. This duration supports VFPA's significant investment in its habitat bank and provides longer-term assurances for the development of new habitat sites in the future. Should DFO policy change within this 20 year term, the Arrangement can accommodate these changes through its 5 year review process identified in Clause 11 – Review and through the provision for amending the Arrangement identified in Clause 12 – Amendment.]

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16. LEGAL DISCLAIMER

This Arrangement is an expression of the mutual intentions of the Participants and is not legally binding or enforceable against them.

17. NOTICE

All notices to be given under this Arrangement shall be in writing and shall be sent by prepaid registered mail or facsimile transmission addressed to the Party entitled to receive the same, or delivered to such party as follows:

- if to VFPA:

Vancouver Fraser Port Authority (VFPA)
100 The Pointe
999 Canada Place
Vancouver, British Columbia
V6C 3T4

Attention: Director, Infrastructure Sustainability
Facsimile: 1.866.212.1688

Commented [ST1]: Shall we indicate update to this, as in "email pdf" or other transmission method?

with a copy to:

Attention: Director, Legal Services
Facsimile: 1.866.665.9062

- if to DFO:

Fisheries and Oceans Canada (DFO)
Pacific Region, Ecosystems Management Branch
Suite 200 – 401 Burrard Street
Vancouver, BC
V6C 3S4

Attention: Regional Director
Facsimile: 604-666-0417

18. GENERAL

VFPA is entering into this Arrangement on its own behalf and not as agent of Her Majesty in Right of Canada.

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EFFECTIVE DATE AND SIGNATURE

This Arrangement has been signed by the Regional Director of DFO Pacific Region of Fisheries and Oceans on behalf of Her Majesty the Queen in Right of Canada and by the VFPA on the dates noted below.

SIGNED IN THE PRESENCE OF:

FOR HER MAJESTY THE QUEEN IN RIGHT OF CANADA

Cheryl Webb
Regional Director
Ecosystems Management
DFO Pacific Region

Witness

Date

FOR VANCOUVER FRASER PORT AUTHORITY

Robin Silvester
President and CEO

Witness (as to both)

J. Dean Readman
Corporate Secretary

Date

This Arrangement comes into effect on the date that both Participants have signed above.

DFO proposed changes dated March 15, 2018

ANNEX A

**HABITAT BANK DESCRIPTION AND THE PRINCIPLES FOR THE MANAGEMENT
OF THE PORT OF VANCOUVER HABITAT BANK**

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ANNEX A: HABITAT BANK DESCRIPTION AND THE PRINCIPLES FOR THE MANAGEMENT OF	
Information Required	Description
Habitat Bank Location ("Service Area")	<p>The Service Area of the Habitat Bank will include conservation projects situated geographically within the Fraser River Estuary and its tributaries, Burrard Inlet, the Strait of Georgia and its associated inlets and other areas as established from time to time as mutually agreed to by the Participants.</p> <p>[NTD: The rationale for the proposed Service Area is as follows: VFPA manages over 16,000 hectares of waterway, more than 1,000 hectares of land and approximately 350 kilometers of shoreline. Such areas includes estuarine and marine shoreline that supports a myriad of commercial, recreational and Aboriginal fisheries and fish that support these fisheries. Some of these fisheries species exhibit anadromous or migratory life histories. For example, Pacific salmon spend the adult portions of their lives feeding in the Pacific Ocean, including the Strait of Georgia, spawn in freshwater rivers and tributaries of the Fraser River and Burrard Inlet, and rear in the Fraser River estuary and along shallow marine shorelines. Habitat creation and enhancement targeted at migratory species can be planned throughout the proposed geographic service area and to the benefit of CRA species that occupy and transit the areas VFPA manages.]</p>
Habitat Bank Administration	<p>The Habitat Bank is a long-term initiative, comprised of conservation projects, that is used to proactively create, restore or enhance fish habitat to benefit fish and wildlife species. Consistent with VFPA's mandate, this enables VFPA to balance future infrastructure development opportunities with a healthy environment.</p> <p><u>Site Selection:</u></p> <p>Conservation projects for the Habitat Bank will generally be selected based on the following considerations and criteria:</p> <ul style="list-style-type: none"> (a) <u>Need:</u> Locations characterized by low productive capacity for species and stocks of interest or species at risk will be considered as a priority for the Habitat Bank. The intent is to develop or improve habitat capacity in the Service Area where habitat is needed and in support of applicable DFO policies. (b) <u>Habitat Productivity:</u> Emphasis will be placed on creation of

	<p>high value habitat types that support a large number of ecological services and species functions (e.g. eelgrass beds and low marshes). The value of productivity will be assessed in the context of “need” (see (a) above).</p> <p>(c) <u>Site location</u>: Sites for the Habitat Bank will be selected based on their proximity to potential development areas with significant or rare ecological habitats or where onsite habitat compensation opportunities may be limited.</p> <p>(d) <u>Feasibility and cost</u>: Coastal zone processes, river hydraulics biological productivity and ecological functioning are amongst the factors that will be used to determine the feasibility of habitat creation. In some areas it may not be possible to achieve stable self-functioning habitat due to ongoing influences of physical processes. Further, some habitat creation options may be possible but only at extreme high cost. Consideration may be given if these habitat types are critical for endangered or threatened species and the habitat credit applied to the Habitat Bank recognizes the increased cost of development.</p> <p>Through regular liaison meetings between DFO and VFPA representatives, potential conservation projects are identified and discussed.</p> <p>DFO’s confirmation of the appropriateness of a proposed conservation project for inclusion in the Habitat Bank is achieved through submitting the project for review and confirmation by DFO using the “Project Confirmation” template set out in ANNEX B.</p> <p>Conservation projects for inclusion in the Habitat Bank may be developed in collaboration with or by, and for the benefit of, third parties. Once included in the Habitat Bank, such conservation projects will be treated in the same manner as other conservation projects that have been placed into the Habitat Bank.</p> <p><u>Habitat Credits:</u></p> <p>Habitat credit valuation will be established specifically for each conservation project. This valuation will include the unit of measure and the value of the credits to be deposited in the Habitat Bank. A description of the approach and the analysis performed will be included in the preparation of the “Project Confirmation” using the template set out in ANNEX B.</p> <p>Conservation projects will be recorded as a deposit into the Habitat Bank on the Habitat Credit Ledger upon completion of construction of the conservation project using the template set out in ANNEX C.</p> <p>The actual productive value of a particular conservation project will be</p>
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DFO proposed changes dated March 15, 2018

	<p>determined immediately prior to its proposed application as credit to offset a development project.</p> <p>VFPA shall, either through ownership, lease, licence or other agreement, ensure that a conservation project site is protected at least until the withdrawal of the habitat credits from the Bank that are associated with the conservation project site.</p>
Bank Establishment Date	<p>July 31, 2012 under the terms of the Working Agreement, which was executed on September 10, 2012.</p> <p>Add: extension</p> <p>Add: new agreement</p>

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ANNEX B

FORM OF PROJECT CONFIRMATION

The following document template (titled Project Confirmation) will be used to identify and confirm that a proposed conservation project is appropriate and confirmed for development and deposit in the Habitat Bank.

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DFO proposed changes dated March 15, 2018

 PORT of vancouver Habitat Enhancement Program	 Fisheries and Oceans Canada Pêches et Océans Canada <u>Project Confirmation</u>
PROJECT NAME:	

Terminology used:

- "Arrangement" refers to the arrangement between Fisheries and Oceans Canada and Vancouver Fraser Port Authority for the management and administration of the Vancouver Fraser Port Authority Habitat Bank
- "DFO" refers to Fisheries and Oceans Canada
- "FPIP" refers to *Fisheries Productivity Investment Policy: A Proponent's Guide to Offsetting (2013)*
- "VFPA" refers to Vancouver Fraser Port Authority
- "Project" refers to the proposed _____
- "QEP" refers to a Qualified Environmental Professional

Preamble:

In accordance with the Arrangement, this Project Confirmation will be used to confirm that:

- VFPA consulted and negotiated with DFO on the suitability of the above-referenced Project for habitat banking purposes.
- DFO agrees, in principle, that the above-referenced Project would be acceptable as fish habitat as identified herein.
- DFO agrees that the identified type of fish habitat and the approximate quantity of fish habitat would be suitable for habitat banking.
- The Project meets the terms of the Arrangement with regard to need, fish habitat, productivity, site location, feasibility/cost, and ownership/tenure.
- DFO acknowledges that VFPA has developed the project concept and will move to final design as identified in the attached drawings.

This Project Confirmation is used to support the conditions and requirements of the Arrangement and does not alter or modify the Arrangement in any manner. This Project Confirmation will also be used to confirm that the Project, if constructed as proposed, meets the objectives of the FPIP. An assisted assessment has determined that a DFO regulatory review pursuant to the Fisheries Act is not required for the Project. This assessment was conducted by a QEP in accordance with guidance from DFO's Projects Near Water web site and DFO's "Science Advice for Managing Risk and Uncertainty in Operational Decisions of the Fisheries Protection Program" (2014). As would be expected for a viable habitat enhancement opportunity, this assessment concluded that the Project will not result in Serious Harm to fish that contribute to commercial, recreational or Aboriginal (CRA) fisheries.

As the Project proceeds, VFPA will maintain responsibility to ensure that the Project has undergone appropriate reviews and assessments, including those mandated by applicable environmental assessment legislation (e.g., Species at Risk Act, if applicable) and any other VFPA-mandated reviews and assessments.

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Project Overview:	
<ul style="list-style-type: none"> • Description of the proposed project and how the proposed project will result in the creation of fish habitat that will provide long-term benefits for salmonid stocks, aquatic species at risk species, and other fish and wildlife that utilize the project area. • Description and valuation of the ecological functions that the proposed project will include. • Brief description of the proposed construction activities, including how they will be undertaken to avoid and mitigate any impacts to fish and fish habitat. • Brief description of the proposed timing for project completion, including post-construction monitoring. 	
Water feature name:	
Location of Works	
Regional district/ land use authority:	
City/municipality:	
Lat./Long.	
Property ownership:	
Description of Pre-Construction Values	
<ul style="list-style-type: none"> • Description of pre-construction habitat values and conditions, including biophysical attributes • Description of pre-construction use of the area, including site history as appropriate 	
Description of Proposed Activities	
<ul style="list-style-type: none"> • Detailed description of construction activities and design approach • Includes attachment of design drawings, and proposed habitat area for construction • Description of construction methodology and detailed mitigation measures 	
Overall work schedule:	
Least risk work window:	
Potential Habitat Gains and Anticipated Affected Areas	

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- *Description of habitat gains, and anticipated affected habitat, table format*

Habitat Type	Potential Habitat Gain (m ²)	Anticipated Affected Habitat (m ²)	Comments
X Habitat Type			
Habitat Gains and Affected Habitat			

Fish Productivity Investment Policy Considerations

- *Description and high-level summary of how the proposed project is expected to comply with FPIP objectives, based on project characteristics, ecology of relevant fisheries species, fisheries management objectives, and any local restoration priorities.*
- *This includes a review of readily available online information including DFO fisheries management plans and other documents as required*
- *Description and rationale for how the proposed project meets the following 4 Principles of the FPIP:*
 - *Principle 1: Offsetting measures must support fisheries management objectives or local restoration priorities.*
 - *Rationale:*
 - *Principle 2: Benefits from offsetting measures must balance Project impacts.*
 - *Rationale:*
 - *Principle 3: Offsetting measures must provide additional benefits to the fishery.*
 - *Rationale:*
 - *Principle 4: Offsetting measures must generate self-sustaining benefits over the long-term.*
 - *Rationale:*

Post Construction Monitoring Plan

- *An as-built survey will be provided to document and confirm the size of the created habitat, following construction.*
- *VFPA will ensure that post-construction monitoring is undertaken in accordance with standard DFO requirements to confirm that created fish habitats are functioning as intended.*
- *A Post-Construction Monitoring Plan for the Habitat Enhancement Program has been created to outline monitoring requirements for habitat enhancement sites.*
- *Monitoring will include assessments of site stability, proper physical function, planting success, and achievement of the desired biological objectives.*
- *VFPA to provide an estimate of predicted time for the vegetation at the site to become well established*

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Attachments	
• <i>Design Drawings (attachment)</i>	
Signed on behalf of Vancouver Fraser Port Authority: _____ Habitat Enhancement Program Vancouver Fraser Port Authority	Date: _____

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ANNEX C

HABITAT CREDIT LEDGER

The following template shall be used to record and track the credits associated with each conservation project that has been deposited in the Habitat Bank. The completed Habitat Credit Ledger will be submitted to DFO at the following frequency:

- with each Annual Report; and
- following a transaction in the Habitat Bank (withdrawal or deposit of credits).

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ANNEX D

FORM OF PROGRESS REPORTS

The following reports will be used to document and communicate the status of the Habitat Bank on an annual basis:

- Annual Report for VFPA's Habitat Bank; and
- Annual Habitat Monitoring Report for VFPA's Habitat Bank.

Each report will be submitted to DFO on annual basis and shall include the detail as provided in the following Outline of Content.

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<u>ANNUAL REPORT FOR VFPA'S HABITAT BANK</u>	
– Outline of Content	
<u>SECTION</u>	<u>CONTENT</u>
1. Table of Contents	
2. Terminology Used	<ul style="list-style-type: none"> • Descriptions of terminology used in the report
3. Executive Summary	<ul style="list-style-type: none"> • Identification of purpose of Annual Report • Statement of commitment between Participants for a working relationship built on trust, accountability and information sharing • Overview of annual transactions and current credits
4. Introduction	<ul style="list-style-type: none"> • Background on the Habitat Bank • Acknowledgement of reporting requirements under the terms of the Arrangement
5. Administration of the Habitat Bank	<ul style="list-style-type: none"> • Tracking processes and responsibilities • Activities started/completed in Reporting Period • Annual Review • VFPA and DFO Liaison Activities • Achievements in Reporting Period
6. Credits in the Habitat Bank	<ul style="list-style-type: none"> • Summary of the credits in the Habitat Bank and the transaction that were performed in the reporting year
7. General Ledger	<ul style="list-style-type: none"> • Overview of the General Ledger
8. Habitat Balance Sheet	<ul style="list-style-type: none"> • Overview of the Habitat Balance Sheet
9. Anticipated Program for 20XX [Next Year]	<ul style="list-style-type: none"> • Projects Currently under Construction • Priority Projects for 20XX
10. Management Issues and Opportunities	<ul style="list-style-type: none"> • Challenges and issues encountered • Obstacles • Potential remedial measures for implementation next year
11. Engagement Activities	ADD DETAILS
12. Community Outreach	OPTIONAL TO REPORT ADD DETAILS

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<u>ANNUAL REPORT FOR VFPA'S HABITAT BANK</u>	
– Outline of Content	
<u>SECTION</u>	<u>CONTENT</u>
<u>Appendices</u>	
Appendix A	Summary of VFPA and DFO Meetings in the Reporting Year
Appendix B	As-Built Reports
Appendix C	Credit Transaction Reports
Appendix D	Map of Sites in the Habitat Bank
Appendix E	General Ledger
Appendix F	Habitat Balance Sheet
Appendix G	Map of Sites Proposed for Next Year

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<u>ANNUAL HABITAT MONITORING REPORT FOR VFPA'S HABITAT BANK</u>	
– Outline of Content	
<u>SECTION</u>	<u>CONTENT</u>
1. Terminology Used	<ul style="list-style-type: none"> • Descriptions of terminology used in the report
2. Introduction	<ul style="list-style-type: none"> • Background of the Habitat Bank • Acknowledgement of reporting requirements under the terms of the Arrangement
3. Types of Monitoring	<ul style="list-style-type: none"> • Description of the various types of monitoring that is used for the administration of the Habitat Bank
4. 20XX Monitoring Results	<ul style="list-style-type: none"> • Overview of monitoring results for each conservation project (Detailed reports are included in Appendix A)
5. Next Year's Habitat Monitoring Report	<ul style="list-style-type: none"> • Overview of next year's anticipated habitat monitoring
<u>Appendices</u>	
Appendix A	Conservation Project Monitoring Reports
Appendix B	Monitoring Status and Proposed Monitoring Schedule

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ANNEX E

EXISTING PROJECTS

The conservation projects that are identified herein represent the status of the Habitat Bank and projects planned for the Habitat Bank as of the Effective Date of this Arrangement.

Table 1 – Conservation projects currently deposited in the Habitat Bank

Table 2 – Conservation projects that have been proposed by VFPA and accepted by DFO as appropriate for development and deposit into the Habitat Bank

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Table 1.0 – Conservation Projects Deposited to VFPA Habitat Bank

No.	SITE	LOCATION	BANKED AREA (m ²)	STATUS
1.	Salt Marsh Restoration – TFN (3.1 & 3.2)	Delta (Tsawwassen)	6,635 m ² (salt marsh)	<ul style="list-style-type: none"> • Work is complete • Monitoring is in progress
2.	Salt Marsh Restoration - Boundary Bay (3.3, 3.4 & 3.5)	Delta (Boundary Bay)	56,357 m ² (salt marsh)	<ul style="list-style-type: none"> • Work is complete • Monitoring is in progress
3.	Glenrose Tidal Marsh	Delta	10,778 m ² (tidal freshwater marsh)	<ul style="list-style-type: none"> • Work is complete • Monitoring is in progress
4.	Riverfront Park Tidal Marsh	Vancouver	1,481 m ² (brackish marsh)	<ul style="list-style-type: none"> • Work is complete • Monitoring is in progress
5.	Gladstone Park Tidal Marsh	Vancouver	3,181 m ² (brackish marsh)	<ul style="list-style-type: none"> • Work is complete • Monitoring is in progress
6.	Timberland Basin Habitat	Surrey	1,146 m ² / 2,777 m ² (tidal freshwater marsh / tidal freshwater mudflat)	<ul style="list-style-type: none"> • Work is complete • Monitoring is in progress

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Table 2.0 – Conservation Projects Proposed by VFPA and accepted by DFO as appropriate for the Habitat Bank

No.	SITE	LOCATION	APPROX. GROSS AREA (ha.)	STATUS
1.	New Brighton Park Shoreline Habitat Restoration Project	Vancouver	~1.5 ha	• Under construction
2.	Polygon Cates Landing Habitat Restoration	North Vancouver	~1.0 ha	• Under construction
3.	Tsawwassen Eelgrass Project	Delta	~4.3 ha	• Permitting and approvals in progress
4.	South Arm Jetty Tidal Marsh Project	Richmond	~44.0 ha	• Permitting and approvals in progress
5.	Westham Island / Canoe Pass Tidal Marsh Project	Ladner	~4.0 ha	• Permitting and approvals in progress
6.	McDonald Tidal Marsh Project	Richmond	~2.8 ha	• Permitting and approvals in progress
7.	Point Grey Tidal Marsh Project	Vancouver	~41.0 ha	• To be advanced in future years
8.	Steveston Island Tidal Marsh Project	Richmond (Steveston)	~6.5 ha	• To be advanced in future years

From: Nutton, Byron
To: "Olson, Charlotte"; Ruffo, Gord
Cc: Thorpe, Suzanne
Subject: RE: March 7 DFO-VFPA HEP Meeting Follow Up - Actions
Date: 2018-March-16 2:16:28 PM
Attachments: 2017-03-16_VFPA_Bank_DFO_edits.docx

Hi Charlotte and Gord.

Please see the attached Arrangement with edits. Other than minor editorial changes, they generally relate to the outstanding items from the list I previously provided (i.e. third parties, indigenous engagement, information sharing) but Suzanne also made a few other suggestions unrelated to these items, which we feel improve the document. Similar to last time, it was getting pretty messy with track changes so I high-lighted the changes (Note: I might have missed high-lighting a few typos, etc. but certainly got all substantive ones). In cases where the edit is a deletion, I high-lighted the text and formatted as strike-through. There are also a couple of notes/suggestions without specific wording. Once you have had a chance to review, I'd be happy to discuss any concerns you might have.

In particular, we spent quite a bit of our effort trying to work out edits that address our outstanding concerns regarding the flexibility to consider third party engagement. Related edits, both larger and smaller, occur in several section of the Arrangement as well as Annex A. I think that we have managed to do so in a manner that meets VFPA's aspirations, but you have concerns in this regard please call me to discuss.

We added a section titled Indigenous Engagement which pretty much just refers to the proposed new Annex that Jemma is currently updating. As noted in the comments provided in that section, to be complete we probably need to add a step in the Annex on use of credits.

We added a clause to the Information Sharing section to accommodate DFO's review process, followed the wording you used for information sharing relating to VFPA's permitting process.

The only other outstanding item from the list I previously provided relates to Service Area, which is with you to re-consider in the context of Indigenous engagement.

Again, please feel free to give me a call to discuss any of these revisions. Otherwise I look forward to hearing back from you on a revised consultation annex, a first draft of a consultation plan, and your thoughts with respect to service area.

Cheers,

Byron

From: Olson, Charlotte [mailto:Charlotte.Olson@portvancouver.com]
Sent: 2018-March-13 9:35 AM
To: Ruffo, Gord; Nutton, Byron; Melnick, Lorienta; Thorpe, Suzanne; [REDACTED]; Scoble, Jemma
Cc: Assier, Gilles
Subject: RE: March 7 DFO-VFPA HEP Meeting Follow Up - Actions

Good morning all,
Please find attached the actions list/notes we have recorded from our recent March 7 meeting in Nanaimo.
Thank you again for the discussion – we look forward to moving these items forward in short order.

Please don't hesitate to respond if anything has been captured in error, or we missed something.

Kind Regards,

Charlotte Olson P.Geo., PMP
Project Management Specialist
CELL: 604.349.4111

From: Ruffo, Gord
Sent: Friday, March 02, 2018 5:32 PM
To: 'Nutton, Byron' <Byron.Nutton@dfo-mpo.gc.ca>; Melnick, Lorienta <Lorienta.Melnick@dfo-mpo.gc.ca>; 'Thorpe, Suzanne' <Suzanne.Thorpe@dfo-mpo.gc.ca>
Cc: [REDACTED]; Olson, Charlotte <Charlotte.Olson@portvancouver.com>; Scoble, Jemma <Jemma.Scoble@portvancouver.com>
Subject: Agenda for March 7 Meeting

Byron, Lorienta, Suzanne
Attached is the proposed Agenda for our March 7 meeting in your Nanaimo office. We are looking forward to our discussions and we appreciate this opportunity to discuss the details related to our new "Habitat Bank Arrangement".

I have also included, for your reference, our proposed "Aboriginal Consultation and Engagement Process" which we provided for your review following our September 2017 meeting.

Gord Ruffo P.Eng.
Program Manager
Habitat Enhancement Program

<< File: 2017-09-25-03-600-VFPA HEP Aboriginal Engagement Summary for DFO-DRAFT-Rev0.pdf >>

Vancouver Fraser Port Authority
100 The Pointe, 999 Canada Place
Vancouver, B.C. Canada V6C 3T4

P: 604.665.9018 | CELL: 604.202.8022

portvancouver.com

<< File: 2018-03-07-03-600-VFPA-AGENDA-VFPA and DFO Liaison Meeting_No 44-Rev0.pdf >> <<

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Habitat Bank Arrangement:

PORT OF VANCOUVER HABITAT BANK

Between

VANCOUVER FRASER PORT AUTHORITY

AND

HER MAJESTY THE QUEEN IN RIGHT OF CANADA, as represented by the Minister of
Fisheries and Oceans on behalf of Fisheries and Oceans Canada ("DFO")

●xxxxxx, 2018

NOTE: the word Annex is something all caps and sometimes not...

PATH Number: [INSERT PATH NUMBER]

DFO proposed changes dated March 16, 2018

1. INTRODUCTION

This document sets out the principles of the mutual understanding between **Vancouver Fraser Port Authority** (“VFPA”) and Fisheries and Oceans Canada (“DFO”) (hereafter referred to as “the Participants”) for the **Port of Vancouver Habitat Bank** (“Habitat Bank”).

WHEREAS:

- a. Fisheries and Oceans Canada (DFO) is responsible for the administration of the *Fisheries Act*, more specifically the fisheries protection provisions including Sections 6, 20, 21, 35, 37, and 38 related to the conservation and protection of Canada's marine and freshwater fisheries resources and their habitats from the impact of human activities. The purpose of the fisheries protection provisions, as set out in Section 6.1 of the *Fisheries Act*, is to provide for the sustainability and ongoing productivity of commercial, recreational and Aboriginal fisheries;
- b. DFO is responsible for the administration of the *Species at Risk Act* ("SARA") with respect to aquatic species other than those individuals in or on federal lands administered by the Parks Canada Agency and, in that capacity, the Minister of Fisheries and Oceans has powers and duties with respect to protecting aquatic species listed under that Act and providing for their recovery;
- c. The Fisheries Protection Policy Statement's goal is to promote compliance with the *Fisheries Act* in order to contribute to the purpose set out in section 6.1 of the *Fisheries Act*;
- d. This Arrangement does not commit DFO to the authorization of any future work, undertaking or activity requiring an authorization under paragraph 35(2)(b) of the *Fisheries Act*, or permit any future project requiring a permit under sections 73 and 74 of the *Species at Risk Act*. All future projects will be reviewed on their own merit and a decision on whether to authorize or permit will be made independent of the existence of a habitat bank arrangement. This Arrangement, and any related communications between DFO and VFPA do not constitute a representation or commitment of any kind to VFPA regarding authorization of any future projects by DFO. This Arrangement, and any related communications, moreover does not constitute a commitment that any habitat credits that may be issued to a proponent will be acceptable in the context of future applications for *Fisheries Act* authorizations or SARA permits.
- e. VFPA is a port authority established by the Government of Canada pursuant to the *Canada Marine Act* and is accountable to the federal Minister of Transport. VFPA has a mandate to facilitate Canada's trade objectives, ensuring goods are moved safely, while protecting the environment and considering local communities. In fulfilling the mandate, VFPA carries out a variety of duties, including infrastructure development to support growth and efficient operations. The Habitat Bank can support such infrastructure development by a proponent when habitat credits are acceptable in the context of future *Fisheries Act* authorizations or SARA permits.

DFO proposed changes dated March 16, 2018

- f. The Participants entered into a Working Agreement dated July 31, 2012 ("Working Agreement") relating to the procedures for development and operation of a VFPA-led habitat bank for a five (5) year trial period which was extended by the Participants to September 10, 2018;
- g. VFPA has undertaken several habitat creation and enhancement projects in consultation with DFO pursuant to the Working Agreement, which are included in Annex E ("Existing Projects"); and
- h. This Arrangement will replace the Working Agreement and the Existing Projects will be managed pursuant to this Arrangement.

THEREFORE, the Participants agree to the following arrangement ("Arrangement").

2. PURPOSE

To support VFPA in fulfilling its mandate (referred to in paragraph e above) by facilitating infrastructure development when habitat credits from the Habitat Bank can be applied to meet future offsetting requirements for such development.

To replace the Working Agreement with this Arrangement and to establish revised principles for the continuation and management of the Habitat Bank by:

- establishing a working relationship between the Participants based on trust, accountability and information sharing;
- establishing a clear understandable Arrangement for managing the Habitat Bank; and
- increasing certainty in the administration of the Habitat Bank.

3. OTHER GENERAL INFORMATION

The activities carried out under this Arrangement will be consistent with:

- *Fisheries Protection Policy Statement* (2013);
- *Fisheries Productivity Investment Policy: A Proponent's Guide to Offsetting* (2013);
- *Interim Fisheries Protection Program's Guide to Proponent-led Habitat Banking* (October, 2016) ("Guide");
- *any relevant Species at Risk Recovery Strategies and management considerations*; and
- *any relevant Fisheries Management Objectives*.

4. SCOPE

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The scope of this Arrangement is limited to the continuation and administration of the Habitat Bank described in Annex A, and including conservation projects proposed in accordance with Annex B and the Existing Projects (described in Annex E).

5. ROLES AND RESPONSIBILITIES

The roles and responsibilities of the VFPA are:

- Jointly managing the performance of the Arrangement with DFO;
- Identifying designing, constructing, monitoring, maintaining, and protecting conservation project sites;
- Meeting all other applicable federal, territorial, provincial and municipal requirements that apply to conservation projects;
- Reporting on performance of conservation projects;
- Accurately maintaining a copy of the habitat credit ledger; and
- Preparing and submitting Progress Reports for the Arrangement.

The roles and responsibilities of DFO are:

- Jointly managing the performance of the Arrangement with VFPA;
- Reviewing, providing advice and confirming conservation project proposals;
- Reviewing Progress Reports, validating habitat credit balances in the habitat credit ledger, and processing habitat credit ledger transactions;
- Verifying the reported results of conservation project performance in the Progress Reports;
- When appropriate, carrying out direct monitoring (i.e., a site visit to gather and analyse samples or information in order to directly verify compliance and effectiveness) and/or carrying out indirect monitoring (i.e., an assessment of information provided in Progress Reports to verify compliance and effectiveness) of conservation project sites; and
- Reviewing and processing Progress Reports of the Arrangement.

The Participants shall fulfill their responsibilities under this Arrangement in accordance with the provisions of federal, provincial and territorial laws and regulations that govern their activities. Should a Participant not be able to perform a function under this Arrangement, the affected Participant will immediately contact the other signatories of this Arrangement so that early resolution can be reached.

6. MANAGEMENT PROVISIONS

This Arrangement establishes the following management provisions for the administration of the Habitat Bank:

- The accountability lies with the office of signatories of the Arrangement: Director, Infrastructure Sustainability, Vancouver Fraser Port Authority and Regional Director, Ecosystems Management, DFO Pacific Region.

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- The day to day administration of the Arrangement will be carried out by: Program Manager, Habitat Enhancement Program, Vancouver Fraser Port Authority and Team Lead, Partnerships, Standards and Guidelines, Fisheries Protection Program, DFO Pacific Region.

7. ADMINISTRATION OF THE HABITAT BANK ARRANGEMENT

- Specific details related to the principles of the administration and operation of the Habitat Bank are included in ANNEX A;
- Conservation projects that are proposed for development are to be submitted for review and confirmation by DFO using the "Project Confirmation" template set out in ANNEX B;
- Habitat credits held within the Habitat Bank shall be tracked using the "Habitat Credit Ledger" template and frequency set out in and described in ANNEX C;
- Progress Reports shall be prepared and submitted annually in accordance with the requirements of ANNEX D;
- Existing Projects that were either constructed or proposed for construction under the terms of the Working Agreement are identified in ANNEX E; and
- Indigenous consultation and engagement related to administration of the Habitat Bank will follow the process outlined in ANNEX F.

8. SHARING OF INFORMATION

While this Arrangement is in effect and at all times thereafter, each of DFO and VFPA and any officers, employees or agents of each of them shall treat all information, data, documents, reports and materials acquired or to which access have been given in the course of, or incidental to, the performance of this Arrangement as confidential, subject to the federal *Access to Information Act* and the *Privacy Act*. With the exception of the Arrangement, the annexes to the Arrangement and annual Progress Reports, which VFPA may disclose from time to time, the Participants shall not disclose or permit to be disclosed such information, data, documents, reports and materials, unless:

- the Participants agree to the disclosure;
- the disclosure is part of the application and review process of VFPA's Project and Environmental Review for a proposed conservation project, which would include disclosure of project-specific information, engagement information for public/stakeholder and Indigenous groups and technical content, and the posting of on-line information;
- the disclosure is part of the application and review process by DFO for a proposed development project that would utilize habitat banking credits as offsetting, which would include disclosure of project-specific information, engagement information for public/stakeholder and Indigenous groups and technical content, and the posting of on-line information;
- the disclosure is part of an application and review process of other regulatory agencies (such as Environment Canada for Disposal at Sea permit) for a proposed

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- conservation project, which would include disclosure only as required by the such agencies;
- the disclosure relates to the sharing of conservation project plans with Indigenous groups as part of the Indigenous Consultation and Engagement Process set out in ANNEX F.
- the disclosure is to a third party ~~proponent~~ as part of the Habitat Bank Administration as described in Annex A;
- the disclosure is required by law;
- the information was obtained from the public; or
- the information is available to the public.

9. CONSULTATION AND ENGAGEMENT

The Participants will collaborate on an approach to meaningfully engage and consult with Indigenous groups in accordance with the Indigenous Consultation and Engagement Process set out in ANNEX F.

NOTE: Add a step to the consultation annex to capture consultation when credits are withdrawn... DFO undertakes consultation with potentially affected Indigenous when contemplating the issuance of an Authorization under Section 35(2)(b) of the *Fisheries Act* in relation to a development project, including the proposed use of habitat banking credits to meet offsetting requirements.

10. DIFFERENCES IN INTERPRETATION AND APPLICATION

The Participants will endeavor to resolve issues regarding the implementation of this Arrangement in a timely manner using mechanisms available to the Participants. Where an issue remains unresolved, the pre-eminent jurisdiction responsible for the matter under consideration will make the final determination and seek concurrence from Director, Infrastructure Sustainability, Vancouver Fraser Port Authority and Regional Director, Ecosystems Management, DFO Pacific Region.

11. PROGRESS REPORTS

The VFPA will prepare progress reports using the form described in Annex D ("Progress Report") on the achievements and challenges encountered during the reporting period of this Arrangement as it relates to the purposes identified in section 2 of this Arrangement.

The Progress Report should be submitted within ninety (90) calendar days from the conclusion of each year. A year will be considered to run from January 1 to December 31.

The Progress Report will be submitted to the Office of signatories of the Arrangement, Director, Infrastructure Sustainability, Vancouver Fraser Port Authority and Regional Director, Ecosystems Management, DFO Pacific Region, for their concurrence.

All Progress Reports will conform to the requirements set out in ANNEX D.

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12. REVIEW

At the end of each five (5) year period during which this Arrangement is in effect, the Regional Director, Ecosystems Management, DFO Pacific Region, will establish a review team consisting of Program Manager, Habitat Enhancement Program, Vancouver Fraser Port Authority and Team Lead, Partnerships, Standards and Guidelines, Fisheries Protection Program, DFO Pacific Region, or an appropriately qualified and mutually agreed to third party to review the effectiveness of activities under this Arrangement. This review team will report to the Regional Director, Ecosystems Management, DFO Pacific Region, within six (6) months of being established.

13. AMENDMENT

The Arrangement may be amended at any time in writing and by mutual consent of the Participants. An amendment will be confirmed by an exchange of letters, signed by the Participants, setting out the amendment and its effective date.

14. FINANCIAL ARRANGEMENT

This Arrangement will not impose any additional financial responsibilities on the Participants, except that each Participant will be responsible for the staff and funding costs it incurs in its own interests, related to the support of the Arrangement.

15. DURATION, WITHDRAWAL AND TERMINATION

This Arrangement is in effect for a period of ten (10) years. VFPA can request renewal of the Arrangement for an additional defined term (of no less than five (5) years) by providing one year's written notice to the other Participant. If this Arrangement is not renewed at the expiration of the term or a renewal, and provided that VFPA is not in breach of this Arrangement, the Participants will continue to apply the terms of this Arrangement to all conservation projects that are either deposited in the Habitat Bank or have been confirmed by DFO in accordance with Annex B.

[NTD: VFPA maintains its preference for a 20-year term for the Arrangement. This duration supports VFPA's significant investment in its habitat bank and provides longer-term assurances for the development of new habitat sites in the future. Should DFO policy change within this 20 year term, the Arrangement can accommodate these changes through its 5 year review process identified in Clause 11 – Review and through the provision for amending the Arrangement identified in Clause 12 – Amendment.]

16. LEGAL DISCLAIMER

This Arrangement is an expression of the mutual intentions of the Participants and is not legally binding or enforceable against them.

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17. NOTICE

All notices to be given under this Arrangement shall be in writing and shall be sent by prepaid registered mail or facsimile transmission addressed to the Party entitled to receive the same, or delivered to such party as follows:

- if to VFPA:

Vancouver Fraser Port Authority (VFPA)
100 The Pointe
999 Canada Place
Vancouver, British Columbia
V6C 3T4

Attention: Director, Infrastructure Sustainability
Facsimile: 1.866.212.1688

with a copy to:

Attention: Director, Legal Services
Facsimile: 1.866.665.9062

- if to DFO:

Fisheries and Oceans Canada (DFO)
Pacific Region, Ecosystems Management Branch
Suite 200 – 401 Burrard Street
Vancouver, BC
V6C 3S4

Attention: Regional Director
Facsimile: 604-666-0417

NOTE: Is fax really still relevant or should be propose something else, or is this a legal thing? I know was dealing with a bank a while back and they wouldn't accept e-mail – it took me a while to figure out how to send a fax!

18. GENERAL

VFPA is entering into this Arrangement on its own behalf and not as agent of Her Majesty in Right of Canada.

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EFFECTIVE DATE AND SIGNATURE

This Arrangement has been signed by the Regional Director of DFO Pacific Region of Fisheries and Oceans on behalf of Her Majesty the Queen in Right of Canada and by the VFPA on the dates noted below.

SIGNED IN THE PRESENCE OF:

FOR HER MAJESTY THE QUEEN IN RIGHT OF CANADA

Cheryl Webb
Regional Director
Ecosystems Management
DFO Pacific Region

Witness

Date

FOR VANCOUVER FRASER PORT AUTHORITY

Robin Silvester
President and CEO

Witness (as to both)

J. Dean Readman
Corporate Secretary

Date

This Arrangement comes into effect on the date that both Participants have signed above.

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ANNEX A

HABITAT BANK DESCRIPTION AND THE PRINCIPLES FOR THE MANAGEMENT OF THE PORT OF VANCOUVER HABITAT BANK

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ANNEX A:	
HABITAT BANK DESCRIPTION AND THE PRINCIPLES FOR THE MANAGEMENT OF	
Information Required	Description
Habitat Bank Location ("Service Area")	<p>The Service Area of the Habitat Bank will include conservation projects situated geographically within the Fraser River Estuary and its tributaries, Burrard Inlet, the Strait of Georgia and its associated inlets and other areas as established from time to time as mutually agreed to by the Participants.</p> <p>[NTD: The rationale for the proposed Service Area is as follows: VFPA manages over 16,000 hectares of waterway, more than 1,000 hectares of land and approximately 350 kilometers of shoreline. Such areas includes estuarine and marine shoreline that supports a myriad of commercial, recreational and Aboriginal fisheries and fish that support these fisheries. Some of these fisheries species exhibit anadromous or migratory life histories. For example, Pacific salmon spend the adult portions of their lives feeding in the Pacific Ocean, including the Strait of Georgia, spawn in freshwater rivers and tributaries of the Fraser River and Burrard Inlet, and rear in the Fraser River estuary and along shallow marine shorelines. Habitat creation and enhancement targeted at migratory species can be planned throughout the proposed geographic service area and to the benefit of CRA species that occupy and transit the areas VFPA manages.]</p>
Habitat Bank Administration	<p>The Habitat Bank is a long-term initiative, comprised of conservation projects, that is used to proactively create, restore or enhance fish habitat to benefit fish and wildlife species. Consistent with VFPA's mandate, this enables VFPA to balance future infrastructure development opportunities with a healthy environment.</p> <p><u>Site Selection:</u></p> <p>Conservation projects for the Habitat Bank will generally be selected based on the following considerations and criteria:</p> <ul style="list-style-type: none"> (a) <u>Need:</u> Locations characterized by low productive capacity for species and stocks of interest or species at risk will be considered as a priority for the Habitat Bank. The intent is to develop or improve habitat capacity in the Service Area where habitat is needed and in support of applicable DFO policies. (b) <u>Habitat Productivity:</u> Emphasis will be placed on creation of

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	<p>high value habitat types that support a large number of ecological services and species functions (e.g. eelgrass beds and low marshes). The value of productivity will be assessed in the context of “need” (see (a) above).</p> <p>(c) <u>Site location</u>: Sites for the Habitat Bank will be selected based on their proximity to potential development areas with significant or rare ecological habitats or where onsite habitat compensation opportunities may be limited.</p> <p>(d) <u>Feasibility and cost</u>: Coastal zone processes, river hydraulics biological productivity and ecological functioning are amongst the factors that will be used to determine the feasibility of habitat creation. In some areas it may not be possible to achieve stable self-functioning habitat due to ongoing influences of physical processes. Further, some habitat creation options may be possible but only at extreme high cost. Consideration may be given if these habitat types are critical for endangered or threatened species and the habitat credit applied to the Habitat Bank recognizes the increased cost of development.</p> <p>Through regular liaison meetings between DFO and VFPA representatives, potential conservation projects are identified and discussed.</p> <p>DFO’s confirmation of the appropriateness of a proposed conservation project for inclusion in the Habitat Bank is achieved through submitting the project for review and confirmation by DFO using the “Project Confirmation” template set out in ANNEX B.</p> <p>Conservation projects for inclusion in the Habitat Bank may be developed in collaboration with or by, and for the benefit of, third parties. Once included in the Habitat Bank, such conservation projects will be treated in the same manner as other conservation projects that have been placed into the Habitat Bank.</p> <p>Note: A variation of this statement is included in Third Parties, below.</p> <p><u>Habitat Credits:</u></p> <p>Habitat credit valuation will be established specifically for each conservation project. This valuation will include the unit of measure and the value of the credits to be deposited in the Habitat Bank. A description of the approach and the analysis performed will be included in the preparation of the “Project Confirmation” using the template set out in ANNEX B.</p> <p>Conservation projects will be recorded as a deposit into the Habitat Bank on the Habitat Credit Ledger upon completion of construction of the conservation project using the template set out in ANNEX C.</p>
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	<p>The actual productive value of a particular conservation project will be determined immediately prior to its proposed application as credit to offset a development project.</p> <p>VFPA shall, either through ownership, lease, licence or other agreement, ensure that a conservation project site is protected at least until the withdrawal of the habitat credits from the Bank that are associated with the conservation project site.</p> <p><u>Third Parties:</u></p> <p>VFPA may develop conservation projects for inclusion in the Habitat Bank in collaboration with third parties. Once included in the Habitat Bank, such conservation projects will be treated in the same manner as other conservation projects that have been placed into the Habitat Bank.</p> <p>VFPA may enter into agreements with third parties to allow withdrawal of habitat credits, as defined by this Arrangement, when such an agreement facilitates development activities that support VFPA in fulfilling its mandate.</p>
Bank Establishment Date	<p>July 31, 2012 under the terms of the Working Agreement, which was executed on September 10, 2012.</p> <p>Add: extension</p> <p>Add: new agreement</p>

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ANNEX B

FORM OF PROJECT CONFIRMATION

The following document template (titled Project Confirmation) will be used to identify and confirm that a proposed conservation project is appropriate and confirmed for development and deposit in the Habitat Bank.

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 PORT of vancouver Habitat Enhancement Program	 Fisheries and Oceans Canada Pêches et Océans Canada <u>Project Confirmation</u>
PROJECT NAME:	

Terminology used:

- “**Arrangement**” refers to the arrangement between Fisheries and Oceans Canada and Vancouver Fraser Port Authority for the management and administration of the Vancouver Fraser Port Authority Habitat Bank
- “**DFO**” refers to Fisheries and Oceans Canada
- “**FPIP**” refers to *Fisheries Productivity Investment Policy: A Proponent’s Guide to Offsetting (2013)*
- “**VFPA**” refers to Vancouver Fraser Port Authority
- “**Project**” refers to the proposed _____
- “**QEP**” refers to a Qualified Environmental Professional

Preamble:

In accordance with the Arrangement, this Project Confirmation will be used to confirm that:

- VFPA consulted and negotiated with DFO on the suitability of the above-referenced Project for habitat banking purposes.
- DFO agrees, in principle, that the above-referenced Project would be acceptable as fish habitat as identified herein.
- DFO agrees that the identified type of fish habitat and the approximate quantity of fish habitat would be suitable for habitat banking.
- The Project meets the terms of the Arrangement with regard to need, fish habitat, productivity, site location, feasibility/cost, and ownership/tenure.
- DFO acknowledges that VFPA has developed the project concept and will move to final design as identified in the attached drawings.

This Project Confirmation is used to support the conditions and requirements of the Arrangement and does not alter or modify the Arrangement in any manner. This Project Confirmation will also be used to confirm that the Project, if constructed as proposed, meets the objectives of the FPIP. An assisted assessment has determined that a DFO regulatory review pursuant to the Fisheries Act is not required for the Project. This assessment was conducted by a QEP in accordance with guidance from DFO’s Projects Near Water web site and DFO’s “Science Advice for Managing Risk and Uncertainty in Operational Decisions of the Fisheries Protection Program” (2014). As would be expected for a viable habitat enhancement opportunity, this assessment concluded that the Project will not result in Serious Harm to fish that contribute to commercial, recreational or Aboriginal (CRA) fisheries.

As the Project proceeds, VFPA will maintain responsibility to ensure that the Project has undergone appropriate reviews and assessments, including those mandated by applicable environmental assessment legislation (e.g., Species at Risk Act, if applicable) and any other VFPA-mandated reviews and assessments.

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Project Overview:	
<ul style="list-style-type: none"> <i>Description of the proposed project and how the proposed project will result in the creation of fish habitat that will provide long-term benefits for salmonid stocks, aquatic species at risk species, and other fish and wildlife that utilize the project area.</i> <i>Description and valuation of the ecological functions that the proposed project will include.</i> <i>Brief description of the proposed construction activities, including how they will be undertaken to avoid and mitigate any impacts to fish and fish habitat.</i> <i>Brief description of the proposed timing for project completion, including post-construction monitoring.</i> 	
Water feature name:	
Location of Works	
Regional district/ land use authority:	
City/municipality:	
Lat./Long.	
Property ownership:	
Description of Pre-Construction Values	
<ul style="list-style-type: none"> <i>Description of pre-construction habitat values and conditions, including biophysical attributes</i> <i>Description of pre-construction use of the area, including site history as appropriate</i> 	
Description of Proposed Activities	
<ul style="list-style-type: none"> <i>Detailed description of construction activities and design approach</i> <i>Includes attachment of design drawings, and proposed habitat area for construction</i> <i>Description of construction methodology and detailed mitigation measures</i> 	
Overall work schedule:	
Least risk work window:	
Potential Habitat Gains and Anticipated Affected Areas	

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- *Description of habitat gains, and anticipated affected habitat, table format*

Habitat Type	Potential Habitat Gain (m ²)	Anticipated Affected Habitat (m ²)	Comments
<i>X Habitat Type</i>			
Habitat Gains and Affected Habitat			

Fish Productivity Investment Policy Considerations

- *Description and high-level summary of how the proposed project is expected to comply with FPIP objectives, based on project characteristics, ecology of relevant fisheries species, fisheries management objectives, and any local restoration priorities.*
- *This includes a review of readily available online information including DFO fisheries management plans and other documents as required*
- *Description and rationale for how the proposed project meets the following 4 Principles of the FPIP:*
 - **Principle 1:** *Offsetting measures must support fisheries management objectives or local restoration priorities.*
 - *Rationale:*
 - **Principle 2:** *Benefits from offsetting measures must balance Project impacts.*
 - *Rationale:*
 - **Principle 3:** *Offsetting measures must provide additional benefits to the fishery.*
 - *Rationale:*
 - **Principle 4:** *Offsetting measures must generate self-sustaining benefits over the long-term.*
 - *Rationale:*

Post Construction Monitoring Plan

- *An as-built survey will be provided to document and confirm the size of the created habitat, following construction.*
- *VFPA will ensure that post-construction monitoring is undertaken in accordance with standard DFO requirements to confirm that created fish habitats are functioning as intended.*
- *A Post-Construction Monitoring Plan for the Habitat Enhancement Program has been created to outline monitoring requirements for habitat enhancement sites.*
- *Monitoring will include assessments of site stability, proper physical function, planting success, and achievement of the desired biological objectives.*
- *VFPA to provide an estimate of predicted time for the vegetation at the site to become well established*

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Attachments

- *Design Drawings (attachment)*

Signed on behalf of Vancouver Fraser Port Authority:

Habitat Enhancement Program
Vancouver Fraser Port Authority

Date: _____

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ANNEX C

HABITAT CREDIT LEDGER

The following template shall be used to record and track the credits associated with each conservation project that has been deposited in the Habitat Bank. The completed Habitat Credit Ledger will be submitted to DFO at the following frequency:

- with each Annual Report; and
- following a transaction in the Habitat Bank (withdrawal or deposit of credits).

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NOTE: CONSIDER ADDING A COLUMN FOR COMMENTS

[illegible]

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ANNEX D

FORM OF PROGRESS REPORTS

The following reports will be used to document and communicate the status of the Habitat Bank on an annual basis:

- Annual Report for VFPA's Habitat Bank; and
- Annual Habitat Monitoring Report for VFPA's Habitat Bank.

Each report will be submitted to DFO on annual basis and shall include the detail as provided in the following Outline of Content.

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<u>ANNUAL REPORT FOR VFPA'S HABITAT BANK</u>	
– Outline of Content	
<u>SECTION</u>	<u>CONTENT</u>
1. Table of Contents	
2. Terminology Used	<ul style="list-style-type: none"> • Descriptions of terminology used in the report
3. Executive Summary	<ul style="list-style-type: none"> • Identification of purpose of Annual Report • Statement of commitment between Participants for a working relationship built on trust, accountability and information sharing • Overview of annual transactions and current credits
4. Introduction	<ul style="list-style-type: none"> • Background on the Habitat Bank • Acknowledgement of reporting requirements under the terms of the Arrangement
5. Administration of the Habitat Bank	<ul style="list-style-type: none"> • Tracking processes and responsibilities • Activities started/completed in Reporting Period • Annual Review • VFPA and DFO Liaison Activities • Achievements in Reporting Period
6. Credits in the Habitat Bank	<ul style="list-style-type: none"> • Summary of the credits in the Habitat Bank and the transaction that were performed in the reporting year
7. General Ledger	<ul style="list-style-type: none"> • Overview of the General Ledger
8. Habitat Balance Sheet	<ul style="list-style-type: none"> • Overview of the Habitat Balance Sheet
9. Anticipated Program for 20XX [Next Year]	<ul style="list-style-type: none"> • Projects Currently under Construction • Priority Projects for 20XX
10. Management Issues and Opportunities	<ul style="list-style-type: none"> • Challenges and issues encountered • Obstacles • Potential remedial measures for implementation next year
11. Engagement Activities	ADD DETAILS
12. Community Outreach	OPTIONAL TO REPORT ADD DETAILS

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<u>ANNUAL REPORT FOR VFPA'S HABITAT BANK</u>	
– Outline of Content	
<u>SECTION</u>	<u>CONTENT</u>
<u>Appendices</u>	
Appendix A	Summary of VFPA and DFO Meetings in the Reporting Year
Appendix B	As-Built Reports
Appendix C	Credit Transaction Reports
Appendix D	Map of Sites in the Habitat Bank
Appendix E	General Ledger
Appendix F	Habitat Balance Sheet
Appendix G	Map of Sites Proposed for Next Year

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<u>ANNUAL HABITAT MONITORING REPORT FOR VFPA'S HABITAT BANK</u>	
– Outline of Content	
<u>SECTION</u>	<u>CONTENT</u>
1. Terminology Used	<ul style="list-style-type: none"> • Descriptions of terminology used in the report
2. Introduction	<ul style="list-style-type: none"> • Background of the Habitat Bank • Acknowledgement of reporting requirements under the terms of the Arrangement
3. Types of Monitoring	<ul style="list-style-type: none"> • Description of the various types of monitoring that is used for the administration of the Habitat Bank
4. 20XX Monitoring Results	<ul style="list-style-type: none"> • Overview of monitoring results for each conservation project (Detailed reports are included in Appendix A)
5. Next Year's Habitat Monitoring Report	<ul style="list-style-type: none"> • Overview of next year's anticipated habitat monitoring
<u>Appendices</u>	
Appendix A	Conservation Project Monitoring Reports
Appendix B	Monitoring Status and Proposed Monitoring Schedule

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ANNEX E

EXISTING PROJECTS

The conservation projects that are identified herein represent the status of the Habitat Bank and projects planned for the Habitat Bank as of the Effective Date of this Arrangement.

Table 1 – Conservation projects currently deposited in the Habitat Bank

Table 2 – Conservation projects that have been proposed by VFPA and accepted by DFO as appropriate for development and deposit into the Habitat Bank

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Table 1.0 – Conservation Projects Deposited to VFPA Habitat Bank

No.	SITE	LOCATION	BANKED AREA (m ²)	STATUS
1.	Salt Marsh Restoration – TFN (3.1 & 3.2)	Delta (Tsawwassen)	6,635 m ² (salt marsh)	<ul style="list-style-type: none"> • Work is complete • Monitoring is in progress
2.	Salt Marsh Restoration - Boundary Bay (3.3, 3.4 & 3.5)	Delta (Boundary Bay)	56,357 m ² (salt marsh)	<ul style="list-style-type: none"> • Work is complete • Monitoring is in progress
3.	Glenrose Tidal Marsh	Delta	10,778 m ² (tidal freshwater marsh)	<ul style="list-style-type: none"> • Work is complete • Monitoring is in progress
4.	Riverfront Park Tidal Marsh	Vancouver	1,481 m ² (brackish marsh)	<ul style="list-style-type: none"> • Work is complete • Monitoring is in progress
5.	Gladstone Park Tidal Marsh	Vancouver	3,181 m ² (brackish marsh)	<ul style="list-style-type: none"> • Work is complete • Monitoring is in progress
6.	Timberland Basin Habitat	Surrey	1,146 m ² / 2,777 m ² (tidal freshwater marsh / tidal freshwater mudflat)	<ul style="list-style-type: none"> • Work is complete • Monitoring is in progress

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Table 2.0 – Conservation Projects Proposed by VFPA and accepted by DFO as appropriate for the Habitat Bank

No.	SITE	LOCATION	APPROX. GROSS AREA (ha.)	STATUS
1.	New Brighton Park Shoreline Habitat Restoration Project	Vancouver	~1.5 ha	• Under construction
2.	Polygon Cates Landing Habitat Restoration	North Vancouver	~1.0 ha	• Under construction
3.	Tsawwassen Eelgrass Project	Delta	~4.3 ha	• Permitting and approvals in progress
4.	South Arm Jetty Tidal Marsh Project	Richmond	~44.0 ha	• Permitting and approvals in progress
5.	Westham Island / Canoe Pass Tidal Marsh Project	Ladner	~4.0 ha	• Permitting and approvals in progress
6.	McDonald Tidal Marsh Project	Richmond	~2.8 ha	• Permitting and approvals in progress
7.	Point Grey Tidal Marsh Project	Vancouver	~41.0 ha	• To be advanced in future years
8.	Steveston Island Tidal Marsh Project	Richmond (Steveston)	~6.5 ha	• To be advanced in future years

From: Nutton, Byron
To: Magnan, Alain
Subject: RE: VFPA habitat bank for discussion with Cheryl
Date: 2018-March-16 3:43:38 PM

I forgot to include our discussion about when credits are available for use – nominally vs. fully functional. This was not on the original list of outstanding items as it is not related to the Arrangement itself, rather it is related to the mechanics of the administration of the bank. Regardless, as they have brought it up to the DG it is worth noting here so that it is not forgotten. I explained our concerns:

- including performance criteria, monitoring and reporting conditions, etc. in the Authorization negates much of the efficiency of using banking credits
- potential lack of transparency with respect to pre-existing conditions, pre-negotiation of the terms and conditions identified above, etc. with respect to contemplating issuance of an Authorization
- lack of enforceability when habitat credits are used by a third party

Although they did not take this item off the table, it seemed like they better understood our concerns and I am hopeful that they drop this as we continue to move forward on the bigger picture of finalizing a new Arrangement.

From: Nutton, Byron
Sent: 2018-March-16 3:00 PM
To: Magnan, Alain
Subject: VFPA habitat bank for discussion with Cheryl

Hey Al,

BACKGROUND:

As a reminder, the last time we discussed this file the outstanding items for negotiation/discussion were:

Major Items:

- Indigenous engagement
- third party use of credits.

Minor Items:

- information sharing
- term of the agreement
- service area

I have attached, below, an updated (red text) list of all the minor items, including the ones previously resolved, for your reference.

UPDATE:

Suzanne, Loriena and I met with VFPA last Wednesday, March 7th to discuss progress on renewal of

their program with a new Habitat Banking Arrangement.

We discussed their draft consultation Annex to be added to the Arrangement, outlining consultation that would take place when planning and constructing conservation projects for deposit to the bank, as well as a step confirming consultation at the time credits are withdrawn. VFPA is now updating that document, as well as preparing a draft plan for consultation on the Arrangement itself. In addition, VFPA is re-considering their proposed service area in the context of Indigenous engagement requirements (i.e. may be better to narrow back down the geographic area to what is in the current agreement to reduce the scope of engagement). They have indicated they will respond on these items by March 21st.

Suzanne and I committed to reviewing the latest draft of the Arrangement and providing comments by today - this has been completed. Comments focussed on third party use of credits and information sharing, but also included a few other minor improvements and editorial suggestions. Provided VFPA is good with our comments, these two items should be resolved...although we need to ensure that Cheryl is OK with the third party piece as this is not in line with the guidance.

We confirmed DFO's position regarding the proposed term of the arrangement (10 years) but VFPA continues to advocate for 20 years.

We did discuss the potential to consider another short-term extension to the current agreement, but VFPA would strongly prefer to have a new long-term arrangement in place.

Complete list of "minor" items previously identified:

1. Information Sharing

The template includes language that is very restrictive with respect to VFPA or DFO sharing information related to the Arrangement. VFPA has requested that this be broadened for several reasons, largely related to disclosure of information to indigenous groups, stakeholders and the public to facilitate engagement when considering conservation projects for development, and when considering the use of credits as offsetting for future development projects.

Recommendation: Further discussion with VFPA to develop new language that is less restrictive.

FOLLOW-UP: VFPA and DFO have included new wording in most recent draft of the Arrangement to accommodate our operational requirements.

2. Term of the Agreement

VFPA has requested a 20-year term for the Arrangement based on the effort

involved in identifying potential sites; conducting indigenous, stakeholder and public engagement; developing detailed designs and plans; constructing the project; and monitoring to ensure success. The guidance and template do not specify an appropriate length for an Arrangement.

It is recognized that the development of conservation projects can take several years, however, a 20-year term seems overly long particularly given that this Arrangement has been developed based on interim guidance. It is likely that VFPA will be willing to negotiate on this point, but likely that they will oppose anything shorter than a 10-year term.

Recommendation: Propose a 10-year term.

FOLLOW-UP: DFO has identified a 10-year term in the draft Arrangement but VFPA continues to advocate for 20-year term.

3. “Orphaned” Credits

VFPA has proposed a clause that would, if the Arrangement is not renewed, allow any remaining credits to continue to be eligible for use under the terms of the Arrangement provided that VFPA is not in any breach of the Arrangement.

Given the investment involved, this does not seem unreasonable.

Recommendation: Accept VFPA proposal.

RESOLVED - NO FURTHER ACTION REQUIRED.

4. Legal Disclaimer

VFPA has proposed to remove the legal disclaimer that reads: *This Arrangement is an expression of the mutual intentions of the Participants and is not legally binding on them or enforceable against them.*

Recommendation: Reject VFPA’s proposal and retain the template legal disclaimer.

RESOLVED - NO FURTHER ACTION REQUIRED.

5. Service Area

VFPA has proposed a very broad scope – “the Fraser River Estuary and its tributaries, Burrard Inlet, the Strait of Georgia and its associated inlets and other areas as established from time to time as mutually agreed to by the Participants.” This is broader in scope than the existing Agreement. Although the proposed Service Area seems overly broad it may be reasonable, but a rationale should be provided.

Definition of the Service Area may be linked with considerations related to Use of Credits and Indigenous Engagement, which will be discussed in a separate e-mail.

Recommendation: Further discussion with VFPA to review their requested Service Area, consider other options, and provide a rationale for a mutually agreeable Service Area.

FOLLOW-UP: VFPA is reconsidering their proposed service area in the context of Indigenous engagement requirements.

6. Annex B: Conservation Project Plan

As part of the existing Agreement, DFO and VFPA have developed a detailed project confirmation process, including the format for submission of proposed conservation projects. VFPA has proposed continuing to use this existing process and format instead of the format provided in the template.

Recommendation: Accept VFPA's proposal.

RESOLVED - NO FURTHER ACTION REQUIRED.

7. Annex D: Progress Reports

As part of the existing Agreement, DFO and VFPA have developed a detailed reporting process, including the format for progress reports. VFPA has proposed continuing to use this existing process and format instead of the format provided in the template.

Recommendation: Accept VFPA's proposal.

RESOLVED - NO FURTHER ACTION REQUIRED.

8. Annex E: Existing Projects

As part of the existing Agreement, VFPA has developed several conservation projects that are either completed or underway. VFPA has proposed that these existing conservation projects be carried forward to be managed under the new Arrangement.

Recommendation: Accept VFPA's proposal.

RESOLVED - NO FURTHER ACTION REQUIRED.

Thorpe, Suzanne

From: Nutton, Byron
Sent: Friday, March 16, 2018 10:54 AM
To: Thorpe, Suzanne
Subject: RE: VFPA Arrangement - minor edits for consideration

Thanks for those edits...I made a few more minor edits mostly to clean up the third party stuff a bit better. The following sections now read as shown below:

I'm just drafting up the e-mail to VFPA and will send it out to them shortly with a cc to you.

Thanks again for your help on this so far...

Section 1 d) and e):

- d. This Arrangement does not commit DFO to the authorization of any future work, undertaking or activity requiring an authorization under paragraph 35(2)(b) of the *Fisheries Act*, or permit any future project requiring a permit under sections 73 and 74 of the *Species at Risk Act*. All future projects will be reviewed on their own merit and a decision on whether to authorize or permit will be made independent of the existence of a habitat bank arrangement. This Arrangement, and any related communications between DFO and VFPA do not constitute a representation or commitment of any kind to VFPA regarding authorization of any future projects by DFO. This Arrangement, and any related communications, moreover does not constitute a commitment that any habitat credits that may be issued to a proponent will be acceptable in the context of future applications for *Fisheries Act* authorizations or SARA permits.
- e. VFPA is a port authority established by the Government of Canada pursuant to the *Canada Marine Act* and is accountable to the federal Minister of Transport. VFPA has a mandate to facilitate Canada's trade objectives, ensuring goods are moved safely, while protecting the environment and considering local communities. In fulfilling the mandate, VFPA carries out a variety of duties, including infrastructure development to support growth and efficient operations. The Habitat Bank can support such infrastructure development by a proponent when habitat credits are acceptable in the context of future *Fisheries Act* authorizations or SARA permits.

Section 2

To support VFPA in fulfilling its mandate (referred to in paragraph e above) by facilitating infrastructure development when habitat credits from the Habitat Bank can be applied to meet future offsetting requirements for such development.

NOTE: I moved the sentence wrt third party withdrawal of credits to Annex A (see below).

Section 9

The Participants will collaborate on an approach to meaningfully engage and consult with Indigenous groups in accordance with the Indigenous Consultation and Engagement Process set out in ANNEX F.

NOTE: Add a step to the consultation annex to capture consultation when credits are withdrawn... DFO undertakes consultation with potentially affected Indigenous when contemplating the issuance of an Authorization under

Section 35(2)(b) of the *Fisheries Act* in relation to a development project, including the proposed use of habitat banking credits to meet offsetting requirements.

Section 15

I got rid of the note re: adding a clause to renew the Annexes – I think that is already covered in section 13. Amendment

Annex A

I added back in a sub-heading for third parties...

Third Parties:

VFPA may develop conservation projects for inclusion in the Habitat Bank in collaboration with third parties. Once included in the Habitat Bank, such conservation projects will be treated in the same manner as other conservation projects that have been placed into the Habitat Bank.

VFPA may enter into agreements with third parties to allow withdrawal of habitat credits, as defined by this Arrangement, when such an agreement facilitates development activities that support VFPA in fulfilling its mandate.

From: Thorpe, Suzanne
Sent: 2018-March-15 3:04 PM
To: Nutton, Byron
Subject: VFPA Arrangement - minor edits for consideration

Hi –

I reviewed: some minor edits included. Also, most legal documents have the number written out in text and print (i.e., ten (10)) so I stuck with that format throughout but not for the Annexes.

S.

Suzanne Thorpe

Partnerships, Standards and Guidelines/ Partenariats, normes et lignes directrices
Fisheries Protection Program/ Programme de protection des pêches
Ecosystem Management Branch / Direction de la gestion des écosystèmes
Fisheries and Oceans Canada (DFO), Pacific Region/ Pêches et Océans Canada, Région du Pacifique
Government of Canada/ Gouvernement du Canada
200-401 Burrard Street, Vancouver BC V6C 3S4 (13th Floor)/ 401 Burrard Street, bureau 200, Vancouver (C.-B.) V6C 3S4
Telephone: (604) 666.3512



Habitat Enhancement Program

Indigenous Engagement Plan for Vancouver Fraser Port Authority's and Fisheries and Oceans Canada's Habitat Bank Arrangement

Rev 0 - March 21, 2018

1. Overview and Purpose

Vancouver Fraser Port Authority (VFPA) currently operates a habitat bank that was created through a formal agreement with Fisheries and Oceans Canada (DFO). This agreement will expire in September 2018 and as such, a new habitat bank agreement between VFPA and DFO is required. It is VFPA's and DFO's intent to enter into a new agreement, under title "Habitat Bank Arrangement: Port of Vancouver Habitat Bank".

DFO regional representatives require that Indigenous groups be informed of the following:

- the VFPA Habitat Enhancement Program
- the Indigenous engagement process for projects that fall under the VFPA Habitat Enhancement Program
- VFPA and DFO's intent to enter into a new Habitat Bank Arrangement

This document outlines VFPA and DFO's approach to meet the above-listed requirements. It also identifies the Indigenous groups within the Service Area that will be engaged, proposed engagement activities and reporting, and a schedule with key timing considerations. This plan, along with the above-referenced documents and engagement activities, is intended to provide Indigenous groups with improved clarity and understanding of the Habitat Banking process as it relates to decisions made by DFO under the Fisheries Act.

2. Service Area

For the purposes of VFPA's new Habitat Bank Arrangement with DFO, the Service Area will be defined as VFPA's navigational jurisdiction as depicted in Figure 1 (below). VFPA would reserve the right, however, to negotiate the development of habitat projects outside of this defined Service Area, should an opportunity be identified.

VFPA and DFO recognize the history and contemporary interests of Indigenous peoples and will work to establish and maintain productive relationships through Indigenous engagement and, which includes direct regular communication and transparency through information sharing. VFPA has, and a desire to engage in mutually beneficial opportunities to enhance the Asia-Pacific Gateway.

Commented [A1]: As a document, discussion of Indigenous issues is a bit weak and could be improved.

I would suggest that some kind of recognition of the importance of Indigenous peoples be added to the overview section or as a separate section to this document. VFPA and DFO should discuss in brief detail, the general direction of government and mention reconciliation.

Should include here: - recognition that FNs hold distinct historical, legal and cultural status within Canada. - Rights and title protected under the Constitution of Canada - reconciliation is important as an overarching goal of the Canadian government.

Commented [A2]: I think that in the interest of good governance that this should be re-written as an 'engagement plan' rather than some sort of requirement from DFO as it is not a legal requirement at this stage. Suggested language: As part of the Arrangement, VFPA and DFO are committed to an enhanced collaboration process that is mutually beneficial, respectful and transparent. VFPA will demonstrate such commitment through carrying out the activities in this engagement plan. VFPA will engage with Indigenous groups identified within the plan, and any other IGs with an interest in the identified Service Area, through direct communications and information sharing related to the following:

Commented [A3]: Have we determined yet, whether or not we intend to share the document? If we are going to share the Arrangement, which I believe we should, then this should be specified herein.

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Commented [A4]: Add a general description of the area, location and general boundaries thereof.

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Commented [A5]: I would avoid any reference in an Indigenous document to "reserving rights". Also, it is not a right of VFPA. Sentence should be re-written. Suggested language: If opportunity arises to negotiate the development of habitat banking projects outside of the Service Area defined by this agreement, VFPA may negotiate an area extension under this Agreement. This may precipitate additional engagement considerations for any additionally affected or interested FNs if new areas are being negotiated outside of the SA identified herein.

Commented [A6]: I am a bit unsure this statement needs to be in here, unless it is recognized as mutually beneficial for FNs, which it may not be considered so (IMO it may not be appropriate to some FNs).

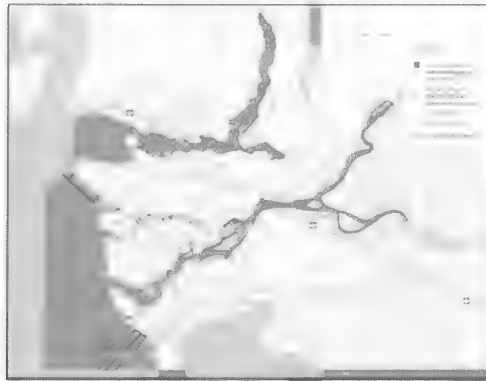


Figure 1

Vancouver Fraser Port Authority operates within the asserted traditional territories of 37 Coast Salish Indigenous groups and in proximity to the treaty settlement lands of the Tsawwassen First Nation.

The following Indigenous groups' asserted traditional territories or treaty lands intersect with the lands and waters managed by VFPA:

Musqueam Indian Band
 Squamish Nation
 Tsleil-Waututh Nation
 Kwikwetlem First Nation
 Katzie First Nation
 Semiahmoo First Nation
 Qayqayt First Nation
 Hwlitsum

Sto:lo Nation

- Aitchelitz First Nation
- Leq'a:mel First Nation
- Matsqui First Nation
- Popkum First Nation
- Shxw'ha:y Village First Nation
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- Lyackson First Nation
- Penelakut First Nation
- Stz'uminus First Nation

Saanich First Nations

- Pauquachin First Nation
- Tsawout First Nation
- Tsartlip First Nation
- Tseycum First Nation

Treaty Lands

- Tsawwassen First Nation

There should be an added statement here, when discussing service area, that indicates all of the FNs identified will be contacted and that their advice and guidance will be sought w/r/t the proposed HB program, plan for the program and w/r/t the Arrangement. It may be intuitive, but is not actually stated herein.

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3. Engagement Process

In order to meet the requirements outlined in **Section 1** above, the following Indigenous engagement activities will be undertaken:

Commented [A7]: Review comment above – this is not a requirement per se, but good governance.

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a) **Sharing of Information Packages**

Information packages will be shared with the Indigenous groups identified in **Section 2**.

These packages will include:

- A description and map of the VFPA Habitat Bank sites and how habitat bank project sites are used to offset serious harm to fisheries
- A description of how habitat credits are deposited into the habitat bank
- A description of how habitat credits may be withdrawn from the habitat bank and the DFO-led Indigenous consultation process associated with this withdrawal
- An overview of VFPA's Habitat Enhancement Program project consultation process. This process demonstrates how Indigenous input and knowledge is considered, where appropriate, throughout the project identification, development, construction and post construction phases as well as opportunities for Indigenous participation (e.g. technical design review, fieldwork, monitoring, contracting, employment and training).
- Other relevant materials (e.g. Habitat Enhancement Program presentations, project overview/information sheets, map of Habitat Enhancement Program projects, etc.).

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Commented [A8]: Byron – I think we need to be careful what this appears to be - do we have a "formal process for this"? Should we be making this a part of THIS plan? My thought is that we should remove and then default to a description about decision-making (generally) under the FA. This will be a concern of FNs so we need to either determine a process upfront, or be clear that this is and will be, as per the FA section 6/6.1 or however it is re-written.

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Commented [A9]: Agree w LMs comments here.

VFPA will undertake follow up communications to confirm receipt of this information by Indigenous groups. VFPA will respond to any questions, comments and feedback from Indigenous groups received in advanced of focused information sessions (see below).

b) **Information Sessions**

Two information sessions (Lower Mainland and Vancouver Island) will be scheduled and invitations will be sent to the identified Indigenous groups. A proposed agenda will be provided in advance of the sessions. Key components of these information sessions will be as follows:

Commented [A10]: Just 2 sessions? I am a bit surprised by this but they know their clients better – I would have thought 3 or 4. What about transportation/ funding to participate?

- Presentation of material included in the Information Packages
- Attendance and support from DFO regional staff
- Questions/feedback from Indigenous groups

Upon completion of the Information Sessions, a one-month response period will be provided to Indigenous groups to provide feedback. It is anticipated that additional information will be requested by Indigenous groups during this period. VFPA will respond to comments and questions from Indigenous groups and may require the support of DFO for these responses.

Commented [A11]: I think that the comment period can be defined as 30days as a preference but in the interest of good process it should remain open longer and we should acknowledge that comments may be received at any time up to July 27/July 31st. Any comments not received before July 31st could be then considered at the time of future renewal (i.e., 5 year review period). This leaves the communications door open.

(Due to the time constraints identified below, timely responses to questions must be achieved.)

Commented [A12]: Rough language. Think it needs to be less constraint oriented by VFPA and more – we are allowing for as much time as possible but have a strong desire for a new Arrangement to be signed in 2018. In my experience, adding constraints = pressure and pressure = what are you hiding, and we want to promote open, transparent mutually inclusive communications.

c) Meetings and Other Engagement Activities

One-on-one meetings or other types of engagement activities (e.g., presentations to elders and/or leadership, community meetings) will be undertaken provided as an option for communication and engagement if preferred and as requested by Indigenous groups.

In the recent past, VFPA Habitat Enhancement Program has consulted Indigenous groups on proposed projects. S within the Habitat Enhancement Program since the HEPs program's inception, and VFPA has developed individualized established ways of working with some Indigenous groups and will continue to improve upon these relationships while undertaking this engagement plan. VFPA anticipates that several groups will be likely to request one-on-one meetings in lieu of, or in addition to, attendance at information sessions.

d) Reporting

At the conclusion of the engagement period, VFPA will prepare a document titled "Summary of Indigenous Engagement on Habitat Bank Arrangement: Port of Vancouver Habitat Bank VFPA's Habitat Bank Arrangement", which will include a description of engagement activities, attendance records for the Information Sessions, list of supplemental information issued to address Indigenous questions, and a compilation of feedback received.

Commented [A13]: Try to use TITLE of document for communications in writing.

Commented [A14]: Will comments be addressed in reporting? Will there be discussion on, address of or consensus approaches to any issues/ concerns raised? If so, how – will there be additional meetings to discuss?

There should be a clear intent/ process to resolve issues within VFPA and DFO control and within the confines of the habitat bank agreement process (as opposed to issues that remain outside of this process).

AGREE with LM here – with whom will documents be shared?

Commented [A15]: Same comment as above – this should probably not be written as a "constraint"

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Commented [A16]: EARLIER if you can compile next week – moves whole schedule up!!!

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e) Schedule and Time Constraints Timing of Arrangement Formalization

The schedule for the implementation of this engagement process is critical to the ongoing development of VFPA's habitat bank. A key time constraint is the expiration of VFPA's existing Working Agreement for Habitat Banking (September 10, 2018).

The following schedule is planned:

Task 1	VFPA to submit Indigenous engagement process for Habitat Bank Arrangement to DFO	March 21, 2018
Task 2	DFO to provide written approval that the engagement process meets DFO requirements	April 4, 2018
Task 3	Preparation and DFO review of Information Packages	April 4 - April 25, 2018
Task 4	Distribution of Information Packages to Indigenous groups	May 1, 2018
Task 5	Information Session No. 1	May 16, 2018

Commented [A17]: Earlier better, if possible

Commented [A18]: DFO staff UNAVAILABLE.

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Task 6	Information Session No. 2	May 30, 2018
	Individual Information Sessions	May 1 to June 30, as requested
Task 7	Information Session Comment Period	June 1 to June 22 July 27, 2018
Task 8	VFPA follow up with Indigenous groups	July 1 to From receipt up to July 31, 2018
Task 9	Preparation of <i>Summary of Indigenous Engagement on VFPA and DFO's Habitat Bank Arrangement</i>	August 1 to August 15, 2018
Task 10	Execution of VFPA and DFO's Habitat Bank Arrangement	August 16 to August 30, 2018

Commented [A19]: It may be appropriate to also identify tsawwassen FN here if the treaty requires it.

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Commented [A20]: We should discuss ... don't want all comment at last date but longer is best and if there is a set date of say July 27th, could probably handle a few stragglers up to July 31st

Commented [A21]: Add consideration of comments received in coordination with DFO – IMO this is an important piece linking to the HB decisions in future.

Formatted: English (Canada)

Commented [A22]: Should the engagement plan include CONTACT information for both VFPA and DFO?

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Commented [A23]: Should the engagement plan identify a dispute resolution process (i.e., if there is significant concern regarding one or more site – what will we do and how will we handle this).

Fisheries and Oceans Canada (DFO) – Tsleil-Waututh Nation (TWN) Discussion on the Port of Vancouver Habitat Bank: Record of Discussion

Draft 2019-03-11

Date: Tuesday, March 5, 2019

Time: 2:00 - 3:30 pm

Location: Tsleil-Waututh Nation, People of the Inlet Office, 3075 Takaya Drive, North Vancouver, BC

Participants:

[REDACTED] TWN, Senior Referrals Analyst

[REDACTED] TWN, Environmental Stewardship Coordinator

Byron Nutton, DFO Fisheries Protection Program, Team Lead

Suzanne Thorpe, DFO Fisheries Protection Program, Senior Biologist

Shona Smith, DFO Fisheries Protection Program, Client Liaison and Partnerships Coordinator

Agenda Items:

1. Proposed renewal of Habitat Banking Arrangement between VFPA and DFO
2. Maplewood Flats proposed Habitat Bank project by VFPA

Discussion:

RE: Renewal of Habitat Banking Arrangement between VFPA and DFO

- DFO explained context and intent to renew the Habitat Bank Arrangement with Vancouver Fraser Port Authority (VFPA) prior to March 31, 2019.
- TWN confirmed that since the last TWN-DFO-VFPA meeting (May 25, 2018) they have been apprised of the HBA through discussions they have held with VFPA and that an earlier copy of the HBA (draft August 2018) was shared by VFPA to TWN.
- DFO discussed the changes that have been made subsequent to the August draft (e.g., change in terminology from conservation projects to habitat banking projects, minor editorial changes).
- DFO confirmed that measures to address previous concerns raised by TWN have been incorporated into HBA, per below, with one exception.
 - ✓ Concerns surrounding the “sale” of credits are addressed under the proposed new HBA in that VFPA would not be able to sell/transfer credits, but VFPA could use their credits on behalf of a third party as described in Annex A.

s.19(1)

- ✓ Early engagement on the development of habitat banking projects is addressed and included in Annex G: Indigenous Consultation and Engagement: Habitat Banking Project Development by HEP (VFPA's Habitat Enhancement Program).
- ✓ Consultation upon contemplation of a regulatory decision is addressed in Appendix F: Indigenous Consultation and Engagement: Use of Habitat Credits to Meet Offsetting Requirements of a *Fisheries Act* Authorization.
- Consultation if/when habitat banking credits are used as offsets for projects located outside of the local area – not addressed. However unlikely, a situation could arise where DFO's scope of consultation on impacts related to a future Authorization might not include TWN, although credits from habitat banking project in TWN traditional territory are used as offsetting.
- TWN confirmed that they are also negotiating a separate TWN-VFPA agreement related to habitat banking, and would ensure that it address the outstanding item related to consultation when habitat banking credits are used
- TWN would like to consider / review: 1) draft final HBA, and 2) Indigenous Engagement Summary report

ACTION: DFO to discuss sharing of documentation with VFPA and send to TWN. On March 12 Byron provided the current draft of the HBA to Lindsey, VFPA confirmed they will send Indigenous Engagement Summary report when it is finalized.

ACTION: TWN will prepare correspondence for DFO to indicate that they are not opposed to the VFPA-DFO Arrangement and can turn this around relatively quickly.

RE: Maplewood Flats (MF)

- DFO is expecting to receive package re: banking aspects for MF project – as completely separate from the offsetting package Authorized for VFPA's Centerm Expansion.
- DFO will consider the appropriateness of the offsetting and any tangible benefits to fish and fish habitat from the proposed bank @ MF
- TWN expressed that justification is needed (e.g., channel-work) and fulsome explanations to facilitate their understanding the benefits; they are expecting a "net environmental gain" – which may include benefits to crab fishery, coho/chum/pink, eelgrass community, etc.; some noted concerns with use of productivity models.

TWN is expecting DFO to complete technical review for habitat banking success and project benefits.

RE: TWN programs

- Services: archaeological assessments, environmental monitoring (mostly project related – construction/ site monitoring ... could consider long-term monitoring in future)
- Data collection: fish counts (Indian River), water quality information, forage fish surveys, eelgrass, count mapping, shore zone data collection; expanding to juvenile escapement/ netting & cumulative effects data collection) => issues with DATA HOUSING, but all Western Science data available for sharing.

- TWN is currently redrafting their stewardship policy. This policy guides TWN's decision making process with respect to all of the surface and subsurface air, land, water, cultural, and natural resources within the TWN consultation area.

No information has been removed or severed from this page

Thorpe, Suzanne

From: Nutton, Byron
Sent: Thursday, March 22, 2018 11:16 AM
To: Melnick, Loriena; Magnan, Alain
Cc: Thorpe, Suzanne
Subject: FW: VFPA-DFO Indigenous Engagement Plan for the New Habitat Bank Arrangement
Attachments: VFPA-DFO Indigenous Engagement Plan for New Habitat Bank Arrangement-Rev 0.docx

Importance: High

Hey guys,

Please see attached engagement plan. You will note that VFPA is looking for confirmation from DFO on this approach by April 4th.

Loriena, I'd appreciate any comments you would like to provide.

Al, another piece for a conversation with Cheryl.

Thanks,

Byron

From: Ruffo, Gord [mailto:Gord.Ruffo@portvancouver.com]
Sent: 2018-March-22 10:42 AM
To: Nutton, Byron
Cc: Thorpe, Suzanne; Olson, Charlotte
Subject: VFPA-DFO Indigenous Engagement Plan for the New Habitat Bank Arrangement

Hi Byron

Thanks for this edited version of the Arrangement that includes DFO feedback. We are reviewing these edits now and will be back to you with any additional comments or requested edits.

Attached is our proposed plan for Indigenous engagement on our new Arrangement. This plan is based on the objectives for this engagement that we discussed as part of our March 7 meeting. We have also included a schedule for this engagement within the plan that identifies the tasks and timelines required to have this process complete by August 15, 2018. We do require DFO's acceptance of this proposed plan which will then enable us to commence with its implementation. The schedule identifies that we require this acceptance by Wednesday April 4. Following receipt of this approval, we would commence the preparation of the Information Packages for DFO review.

Please let us know if you require any further information.
Both Charlotte and I appreciate your time and effort on this matter!

Gord Ruffo P.Eng.
Senior Project Manager
Habitat Enhancement Program



Vancouver Fraser Port Authority
100 The Pointe, 999 Canada Place
Vancouver, B.C. Canada V6C 3T4

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portvancouver.com

No information has been removed or severed from this page



Habitat Enhancement Program

Indigenous Engagement Plan for Vancouver Fraser Port Authority's and Fisheries and Oceans Canada's Habitat Bank Arrangement

Rev 0 - March 21, 2018

Vancouver Fraser Port Authority operates within the asserted traditional territories of 37 Coast Salish Indigenous groups and in proximity to the treaty settlement lands of the Tsawwassen First Nation.

The following Indigenous groups' asserted traditional territories or treaty lands intersect with the lands and waters managed by VFPA:

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- Matsqui First Nation
- Popkum First Nation
- Shxwha:y Village First Nation
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- Stz'uminus First Nation

Saanich First Nations

- Pauquachin First Nation
- Tsawout First Nation
- Tsartlip First Nation
- Tseycum First Nation

Treaty Lands

- Tsawwassen First Nation

3. Engagement Process

In order to meet the requirements outlined in **Section 1** above, the following Indigenous engagement activities will be undertaken:

a) Sharing of Information Packages

Information packages will be shared with the Indigenous groups identified in **Section 2**. These packages will include:

- A description of how habitat banks are used to offset serious harm to fisheries
- A description of how habitat credits are deposited into the habitat bank
- A description of how habitat credits may be withdrawn from the habitat bank and the DFO-led Indigenous consultation process associated with this withdrawal
- An overview of VFPA's Habitat Enhancement Program project consultation process. This process demonstrates how Indigenous input and knowledge is considered, where appropriate, throughout the project identification,

development, construction and post construction phases as well as opportunities for Indigenous participation (e.g. technical design review, fieldwork, monitoring, contracting, employment and training).

- Other relevant materials (e.g. Habitat Enhancement Program presentations, project overview/information sheets, map of Habitat Enhancement Program projects, etc.).

VFPA will undertake follow up communications to confirm receipt of this information by Indigenous groups. VFPA will respond to any questions, comments and feedback from Indigenous groups received in advance of focused information sessions (see below).

b) Information Sessions

Two information sessions (Lower Mainland and Vancouver Island) will be scheduled and invitations will be sent to the identified Indigenous groups. A proposed agenda will be provided in advance of the sessions. Key components of these information sessions will be as follows:

- Presentation of material included in the Information Packages
- Attendance and support from DFO regional staff
- Questions/feedback from Indigenous groups

Upon completion of the Information Sessions, a one-month response period will be provided to Indigenous groups to provide feedback. It is anticipated that additional information will be requested by Indigenous groups during this period. VFPA will respond to comments and questions from Indigenous groups and may require the support of DFO for these responses. Due to the time constraints identified below, timely responses to questions must be achieved.

c) Meetings and Other Engagement Activities

One-on-one meetings or other types of engagement activities (e.g. presentations to elders and/or leadership, community meetings) will be undertaken if preferred and as requested by Indigenous groups. VFPA has consulted Indigenous groups on projects within the Habitat Enhancement Program since the program's inception and has established ways of working with Indigenous groups. VFPA anticipates that several groups will request one-on-one meetings in lieu of, or in addition to, attendance at information sessions.

d) Reporting

At the conclusion of the engagement period, VFPA will prepare a document titled "*Summary of Indigenous Engagement on VFPA's Habitat Bank Arrangement*", which will include a description of engagement activities, attendance records for the Information Sessions, list of supplemental information issued to address Indigenous questions, and a compilation of feedback received.

e) Schedule and Time Constraints

The schedule for the implementation of this engagement process is critical to the ongoing development of VFPA's habitat bank. A key time constraint is the expiration of VFPA's existing Working Agreement for Habitat Banking (September 10, 2018).

The following schedule is planned:

Task 1	VFPA to submit Indigenous engagement process for Habitat Bank Arrangement to DFO	March 21, 2018
Task 2	DFO to provide written approval that the engagement process meets DFO requirements	April 4, 2018
Task 3	Preparation and DFO review of Information Packages	April 4 - April 25, 2018
Task 4	Distribution of Information Packages to Indigenous groups	May 1, 2018
Task 5	Information Session No. 1	May 16, 2018
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Task 9	Preparation of <i>Summary of Indigenous Engagement on VFPA and DFO's Habitat Bank Arrangement</i>	August 1 to August 15, 2018
Task 10	Execution of VFPA and DFO's Habitat Bank Arrangement	August 16 to August 30, 2018

Thorpe, Suzanne

From: Melnick, Loriena
Sent: Friday, March 23, 2018 11:30 AM
To: Nutton, Byron; Magnan, Alain
Cc: Thorpe, Suzanne
Subject: RE: VFPA-DFO Indigenous Engagement Plan for the New Habitat Bank Arrangement
Attachments: 2018-03-23_VFPA-DFO Indigenous Engagement Plan for New Habitat Bank Arrangement-Rev 0_LM comments.docx

Hello, all. Please find my comments attached. Let me know if you would like to discuss.

From: Nutton, Byron
Sent: March-22-18 11:16 AM
To: Melnick, Loriena; Magnan, Alain
Cc: Thorpe, Suzanne
Subject: FW: VFPA-DFO Indigenous Engagement Plan for the New Habitat Bank Arrangement
Importance: High

Hey guys,

Please see attached engagement plan. You will note that VFPA is looking for confirmation from DFO on this approach by April 4th.

Loriena, I'd appreciate any comments you would like to provide.

Al, another piece for a conversation with Cheryl.

Thanks,

Byron

From: Ruffo, Gord [<mailto:Gord.Ruffo@portvancouver.com>]
Sent: 2018-March-22 10:42 AM
To: Nutton, Byron
Cc: Thorpe, Suzanne; Olson, Charlotte
Subject: VFPA-DFO Indigenous Engagement Plan for the New Habitat Bank Arrangement

Hi Byron

Thanks for this edited version of the Arrangement that includes DFO feedback. We are reviewing these edits now and will be back to you with any additional comments or requested edits.

Attached is our proposed plan for Indigenous engagement on our new Arrangement. This plan is based on the objectives for this engagement that we discussed as part of our March 7 meeting. We have also included a schedule for this engagement within the plan that identifies the tasks and timelines required to have this process complete by August 15, 2018. We do require DFO's acceptance of this proposed plan which will then enable us to commence with its implementation. The schedule identifies that we require this acceptance by Wednesday April 4. Following receipt of this approval, we would commence the preparation of the Information Packages for DFO review.

Please let us know if you require any further information.
Both Charlotte and I appreciate your time and effort on this matter!

Gord Ruffo P.Eng.
Senior Project Manager
Habitat Enhancement Program



Vancouver Fraser Port Authority
100 The Pointe, 999 Canada Place
Vancouver, B.C. Canada V6C 3T4

P: 604.665.9018 | CELL: 604.202.8022
portvancouver.com

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Habitat Enhancement Program

Indigenous Engagement Plan for Vancouver Fraser Port Authority's and Fisheries and Oceans Canada's Habitat Bank Arrangement

Rev 0 - March 21, 2018

1. Overview and Purpose

Vancouver Fraser Port Authority (VFPA) currently operates a habitat bank that was created through a formal agreement with Fisheries and Oceans Canada (DFO). This agreement will expire in September 2018 and as such, a new habitat bank agreement between VFPA and DFO is required. It is VFPA's and DFO's intent to enter into a new Habitat Bank Arrangement.

DFO regional representatives require that Indigenous groups be informed of the following:

- the VFPA Habitat Enhancement Program
- the Indigenous engagement and consultation process for projects that fall under the VFPA Habitat Enhancement Program
- VFPA and DFO's intent to enter into a new Habitat Bank Arrangement

This document outlines VFPA and DFO's approach to meet the above-listed requirements. It also identifies the Indigenous groups within the Service Area that will be engaged, proposed engagement activities and reporting, and a schedule with key timing considerations.

2. Service Area

For the purposes of VFPA's new Habitat Bank Arrangement with DFO, the Service Area will be defined as VFPA's navigational jurisdiction as depicted in Figure 1 below. VFPA would reserve the right, however, to negotiate the development of habitat projects outside of this defined Service Area, should an opportunity be identified.

VFPA and DFO recognize the history and contemporary interests of Indigenous peoples and work to establish and maintain productive relationships through Indigenous engagement, regular communication, and a desire to engage in mutually beneficial opportunities to enhance the Asia-Pacific Gateway.



Figure 1

Vancouver Fraser Port Authority operates within the asserted traditional territories of 37 Coast Salish Indigenous groups and in proximity to the treaty settlement lands of the Tsawwassen First Nation.

The following Indigenous groups' asserted traditional territories or treaty lands intersect with the lands and waters managed by VFPA:

Musqueam Indian Band
Squamish Nation
Tsleil-Waututh Nation
Kwikwetlem First Nation
Katzie First Nation
Semiahmoo First Nation
Qayqayt First Nation
Hwlitsum

Sto:lo Nation

- Aitchelitz First Nation
- Leq'a:mel First Nation
- Matsqui First Nation
- Popkum First Nation
- Shxw'ha:y Village First Nation
- Skawahlook First Nation

Sto:lo Tribal Council

- Chawathil First Nation
- Cheam First Nation
- Kwantlen First Nation
- Kwaw-kwaw-Apilt First Nation
- Scowlitz First Nation
- Seabird Island First Nation
- Shxw'ow'hamel First Nation
- Skowkale First Nation
- Soowahlie First Nation
- Squiala First Nation
- Sumas First Nation
- Tzeachten First Nation
- Yakweakwioose First Nation

Hul'qumi'num Treaty Group

- Cowichan Tribes
- Halalt First Nation
- Lake Cowichan First Nation
- Lyackson First Nation
- Penelakut First Nation
- Stz'uminus First Nation

Saanich First Nations

- Pauquachin First Nation
- Tsawout First Nation
- Tsartlip First Nation
- Tseycum First Nation

Treaty Lands

- Tsawwassen First Nation

3. Engagement Process

In order to meet the requirements outlined in Section 1 above, the following Indigenous engagement activities will be undertaken:

a) Sharing of Information Packages

Information packages will be shared with the Indigenous groups identified in Section 2. These packages will include:

- A description of how habitat banks are used to offset serious harm to fisheries
- A description of how habitat credits are deposited into the habitat bank
- A description of how habitat credits may be withdrawn from the habitat bank and the DFO-led Indigenous consultation process associated with this withdrawal
- An overview of VFPA's Habitat Enhancement Program project-Indigenous consultation and engagement process for proposed habitat banking projects. This process demonstrates how VFPA intends to engage and

Commented [A1]: Assuming this will be shared by providing a revised "Habitat Enhancement Program: Aboriginal Consultation and Engagement Process"

consult with Indigenous groups within the identified service area; identify how Indigenous input and knowledge is will be considered, where appropriate, throughout the project identification, development, construction and post construction phases as well as opportunities for Indigenous participation (e.g. technical design review, fieldwork, monitoring, contracting, employment and training); as well as key VFPA – DFO reporting milestones to ensure compliance with the Arrangement.

- Other relevant materials (e.g. Habitat Enhancement Program presentations, project overview/information sheets, map of Habitat Enhancement Program projects, etc.).

VFPA will undertake follow up communications to confirm receipt of this information by Indigenous groups. VFPA will respond to any questions, comments and feedback from Indigenous groups received in advanced of focused information sessions (see below).

b) Information Sessions

Two information sessions (Lower Mainland and Vancouver Island) will be scheduled and invitations will be sent to the identified Indigenous groups. A proposed agenda will be provided in advance of the sessions. Key components of these information sessions will be as follows:

- Presentation of material included in the Information Packages
- Attendance and support from DFO regional staff
- Questions/feedback from Indigenous groups

Upon completion of the Information Sessions, a one-month response period will be provided to Indigenous groups to provide feedback. It is anticipated that additional information will be requested by Indigenous groups during this period. VFPA will respond to comments and questions from Indigenous groups and may require the support of DFO for these responses. Due to the time constraints identified below, timely responses to questions must be achieved.

c) Meetings and Other Engagement Activities

One-on-one meetings or other types of engagement activities (e.g. presentations to elders and/or leadership, community meetings) will be undertaken if preferred and as requested by Indigenous groups. VFPA has consulted Indigenous groups on projects within the Habitat Enhancement Program since the program's inception and has established ways of working with Indigenous groups. VFPA anticipates that several groups will request one-on-one meetings in lieu of, or in addition to, attendance at information sessions.

d) Reporting

At the conclusion of the engagement period, VFPA will prepare a document titled "Summary of Indigenous Engagement on VFPA's Habitat Bank Arrangement", which will include a

Commented [A2]: Will VFPA be providing funding to support Indigenous participation at the information sessions or one-on-one meetings?

Commented [A3]: Is the goal of these meetings to only share information? Will VFPA provide an opportunity for Indigenous groups to provide feedback before moving to the reporting stage? It should be anticipated that groups will want time to consider the information before providing meaningful input back to VFPA.

Commented [A4]: Who will this be shared with?

description of engagement activities, attendance records for the Information Sessions, list of supplemental information issued to address Indigenous questions, and a compilation of feedback received.

e) Schedule and Time Constraints

The schedule for the implementation of this engagement process is critical to the ongoing development of VFPA's habitat bank. A key time constraint is the expiration of VFPA's existing Working Agreement for Habitat Banking (September 10, 2018).

The following schedule is planned:

Task 1	VFPA to submit Indigenous engagement process for Habitat Bank Arrangement to DFO	March 21, 2018
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Commented [A5]: Suggest adding in the table detail on the offer to hold individual engagement sessions, as well as the time period to hold these sessions

Commented [A6]: Comment period is noted here but not described in previous section – what are the goals associated with this task?

Commented [A7]: Same comment as above

Thorpe, Suzanne

From: Olson, Charlotte <Charlotte.Olson@portvancouver.com>
Sent: Thursday, April 5, 2018 11:27 AM
To: Nutton, Byron; Ruffo, Gord
Cc: Thorpe, Suzanne
Subject: RE: VFPA-DFO Indigenous Engagement Plan for the New Habitat Bank Arrangement

Thanks Byron, unfortunately we are tied up this Friday afternoon – can we do a call instead on Monday afternoon April 9th?

Please advise (and time) and we'll send a call invite.

Thanks,

Charlotte Olson P.Geo., PMP
Manager, Infrastructure Habitat Development

CELL: 604.349.4111

From: Nutton, Byron [mailto:Byron.Nutton@dfo-mpo.gc.ca]
Sent: Thursday, April 05, 2018 11:17 AM
To: Ruffo, Gord <Gord.Ruffo@portvancouver.com>
Cc: Thorpe, Suzanne <Suzanne.Thorpe@dfo-mpo.gc.ca>; Olson, Charlotte <Charlotte.Olson@portvancouver.com>
Subject: RE: VFPA-DFO Indigenous Engagement Plan for the New Habitat Bank Arrangement

Hi Gord.

We have reviewed the document and Loriena, Suzanne and I do have some comments.

I am out of the office the rest of the day today, but am in tomorrow and will endeavour to collate and send them to you in the AM.

My schedule is open tomorrow afternoon...if you are available and would like to set up a short call to discuss please send me a meeting invite.

Cheers,

Byron

From: Ruffo, Gord [mailto:Gord.Ruffo@portvancouver.com]
Sent: 2018–March-22 10:42 AM
To: Nutton, Byron <Byron.Nutton@dfo-mpo.gc.ca>
Cc: Thorpe, Suzanne <Suzanne.Thorpe@dfo-mpo.gc.ca>; Olson, Charlotte <Charlotte.Olson@portvancouver.com>
Subject: VFPA-DFO Indigenous Engagement Plan for the New Habitat Bank Arrangement

Hi Byron

Thanks for this edited version of the Arrangement that includes DFO feedback. We are reviewing these edits now and will be back to you with any additional comments or requested edits.

Attached is our proposed plan for Indigenous engagement on our new Arrangement. This plan is based on the objectives for this engagement that we discussed as part of our March 7 meeting. We have also included a schedule for this engagement within the plan that identifies the tasks and timelines required to have this process complete by August 15, 2018. We do require DFO's acceptance of this proposed plan which will then enable us to commence with its implementation. The schedule identifies that we require this acceptance by Wednesday April 4. Following receipt of this approval, we would commence the preparation of the Information Packages for DFO review.

Please let us know if you require any further information.
Both Charlotte and I appreciate your time and effort on this matter!

Gord Ruffo P.Eng.
Senior Project Manager
Habitat Enhancement Program



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portvancouver.com

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Nutton, Byron

Subject: Call to discuss DFO comments on Indigenous Engagement Plan
Location: VFPA office – Vancouver Room (6) – 100 The Pointe, 999 Canada Place
Start: Mon 2018-04-09 3:00 PM
End: Mon 2018-04-09 4:00 PM
Recurrence: (none)
Meeting Status: Not yet responded
Organizer: Olson, Charlotte

Please accept for a call to receive DFO feedback on the draft March 21/18 version of Indigenous Engagement Plan for the new VFPA-DFO Habitat Bank Arrangement

Objective:

- * Byron (DFO) to provide comment/feedback on draft Plan

Please call:
604-216-6040


Byron, please send any comments in advance if that is helpful.

Thx
Charlotte

s.16(2)(c)

Pringle, Sarah

Subject: Port Habitat Banking Agreement
Location: Al/Byron to call Cheryl 604 666 6532

Start: Mon 23/04/2018 11:30 AM
End: Mon 23/04/2018 12:00 PM

Recurrence: (none)

Meeting Status: Meeting organizer

Organizer: Webb, Cheryl
Required Attendees: Magnan, Alain; Nutton, Byron



Re: Port Habitat
Banking Agree...

Pringle, Sarah

From: Magnan, Alain
Sent: April-12-18 6:56 PM
To: Webb, Cheryl
Cc: Fogliato, Cara; Nutton, Byron
Subject: Re: Port Habitat Banking Agreement

Hi Cheryl,

Yes, Byron and I can meet with you to discuss the port's habitat bank. I can work with Cara to find a time.

Al

Sent from my BlackBerry 10 smartphone on the Rogers network.

From: Webb, Cheryl
Sent: Thursday, April 12, 2018 3:23 PM
To: Magnan, Alain
Cc: Fogliato, Cara
Subject: Port Habitat Banking Agreement

Al, it looks like John will be meeting with Nick (and I will join by phone) on April 26 to talk about the Port's Habitat Banking Agreement. Can we schedule a meeting on April 23, so that I can get an update?

C

Cheryl Webb
Regional Director
Ecosystems Management Branch
Fisheries and Oceans Canada / Government of Canada
cheryl.webb@dfo-mpo.gc.ca / Tel: 604-666-6532
Directrice régionale
Direction des écosystèmes
Pêches et Océans Canada / Gouvernement du Canada
cheryl.webb@dfo-mpo.gc.ca / Tél: 604-666-6532

Thorpe, Suzanne

From: Thorpe, Suzanne
Sent: Monday, April 23, 2018 10:39 AM
To: Nutton, Byron
Subject: VFPA Arrangement (comments from Suzanne); and, this week!
Attachments: VFPA-DFO Indigenous Engagement Plan for New Habitat Bank Arrangement-Rev 0_ST.docx

Follow Up Flag: Follow up
Flag Status: Flagged

Hey –

I just gave you a call to talk about VFPA and see if you need support on the file. Al Magnan mentioned that you have an upcoming meeting with Cheryl, at which time, I think that you should discuss/ seek direction on level of engagement/ consultation by DFO. I offered my assistance to Al, if needed.

After attending the 2.5d Indigenous Consultation and Reconciliation Training course last week, I think we really need to think about the process that DFO intends to take w/r/t this Arrangement, and all others. IMO – everything about HB should require DFO to sufficiently assure that we have taken steps to show Aboriginal engagement and consultation at the outset as a federal responsibility; that being, good governance, in the interest of reconciliation, and the Arrangement by all appearances links to future decisions about the use of lands (which will already have restoration/ conversion habitats built, per the Arrangement). I understand that it is a “grey area” from a DTC perspective (i.e., no formal decision being made, BUT the Arrangement *could* be considered a decision of sorts re: offsetting, which is linked to the Act). I understand the current thinking that VFPA should lead this as a self-managed bank, to which we only agree to at this time for “restoration/habitat conversion”, but the fact that the lands/ habitat would likely not be affected without the Arrangement in place, would strongly link to the future federal decision. As well, these are large areas of land that are non-ceded and may have overlapping FN claims so we should probably take an active role to ensure that R+T are not affected or perceived to be affected through the process of establishing the HBs.

Just my thoughts (above).

Re: this week:

- I am compiling comments on the End-of-Pipe guidelines this am, then hoping to get to the other habitat banks today/ tmo.
- SAR Unit has requested FPP compile habitat information on White Sturgeon – I want to talk to you about the request/ work to be completed.
- I have to work from home a little bit this week – so I also want to ensure you are ok with my balance of hours this week – let’s discuss!

Suzanne.

From: Thorpe, Suzanne
Sent: 2018–March-25 12:19 PM
To: Nutton, Byron
Subject: RE: VFPA Arrangement - comments and thoughts from Suzanne

Hi Byron;

Sorry – I had a lot of things on the go last week [REDACTED] so it took me a bit to get this over to you. [REDACTED]

W/r/t the VFPA Indigenous Engagement Plan ... some thoughts:

- Overall, I think that the plan is a little bit weak. I think that this level of engagement-type of plan needs to be as a stand-alone document and as such, should reflect the current direction of government to a greater degree than it does, including mention of rights, title and reconciliation. This could be provided as a separate section on “VFPA/ DFO relationship-building with Indigenous Peoples” or something titled like that.
- On the preceding point – the whole reason for an Indigenous Engagement Plan is for gov’t to demonstrate their commitment to address Indigenous issues through consultation and where appropriate, accommodation. This engagement plan will be used as a supporting piece to fulfil DFOs Duty to Consult as a constitutional duty and this should be included somewhere in the document – where we talk about collaboration, consultation, open and transparent government processes and the recognized need for broad communications and building of relationships (per above statement).

This document should address the fact that the engagement process will be used to: make informed and appropriate decisions in the future under the FA, create and improve working relationships, and address common law/ statutory requirements as well as the need for consultation on agreements/ contractual requirements (as is recognized in the federal guidelines for Aboriginal Consultation), and further to that the new considerations around reconciliation.

WE (DFO) need to make sure this document is reflective of this, and provide information on when the Crown has DTC and identify that this will be completed when the FA decision is made and that this is the responsibility of DFO. We should also indicate that DFO will attend the engagement sessions as part of the process in the overall habitat banking agreement since the HB is linked to a future decision process.

FYI – The language below may assist with the development of this engagement plan further (from the Guidelines) – some of this wording could be used to form a paragraph that provides additional context to this plan:

The objective of the Guidelines is to provide an approach to consultation and accommodation that:

- acknowledges and respects the Crown's unique relationships with Aboriginal peoples;
 - promotes reconciliation of Aboriginal and other societal interests;
 - integrates consultation into government day-to-day activities, e.g. environmental and regulatory processes;
 - reconciles the need for consistency in fulfilling the Crown's duty to consult with the desired flexibility, responsibility and accountability of departments and agencies in determining how best to do so; and
 - fosters better relations between the federal government and Aboriginal peoples, provinces, territories, industry and the public.
- I also think that the issue of treaty rights needs to be identified as a consideration more explicitly, and in particular there should be a section on engagement of FNs with a Treaty – recognizing that VFPA and DFO will fulfil their engagement and consultation obligations in accordance with any treaties held (i.e., with Tsawwassen FN) – and, we may wish to review the modern Treaty documents and determine what those commitments are, and ensure that this is specifically outlined in this engagement plan.

- I think that there needs to be a section on roles and responsibilities of each party, or add this to Section 3. It needn't be lengthy but this should then outline a) engagement process and b) FA 'requirements' ... and should provide the R&Rs of each party and explain why we are even engaging at this point (i.e., in interest of both parties for early engagement and for feedback from FNs to define and support processes at early stage such that a FA decision is not a surprise) – recall that FNs could consider this type of agreement as a type of pre-emptive decision since associated with this is a decision to build a habitat bank. IMO the document needs to be upfront about this, since the actual FA use of credits is linked to future project decisions.
- I think that even though VFPA wants to wrap all this up and have an agreement signed asap in Sept 2018, it needs to be recognized somewhere in this plan that if significant unresolvable issues are brought forward, that VFPA and DFO will coordinate to determine if additional consultation activities may be necessary. This is an important point to provide for fair meaningful process. I don't think we would anticipate significant issues, but should recognize this IF it were to fall out of the process. We should also indicate what we will do in the event that some sort of opposition to say a project site is encountered – what will be the process for dispute resolution OR in the interest of moving forward an agreement, would we re-consider the project sites detailed within the agreement.
- I am also interested to know whether or not there needs to be any sort of discussion or heads up to the provincial gov't on this Arrangement. If there are any projects that may affect provincial management areas or other interests ... we should probably have a discussion piece to inform FNs of other agencies/ parties that may be engaged on the HB plan.

Sorry, this is probably more than you were bargaining for but I think we need to be careful about the optics of Habitat Banking with Indigenous groups and the strong, inextricable linkage there is to future decision-making, based on the Arrangement we make with VFPA. IMO this puts DFO into a quasi-decision-making role and we need to ensure that our engagement is also strong and recognizes the new government direction w/r/t reconciliation – we could never be faulted for that.

[REDACTED] You can LMK the outcome of whatever happens w/r/t my comments when I am back (April 3).

Suzanne

From: Nutton, Byron
Sent: 2018-March-23 2:42 PM
To: Thorpe, Suzanne
Subject: RE: VFPA Arrangement

Just send me your stuff – I can compile with mine and Lorien's

From: Thorpe, Suzanne
Sent: 2018-March-23 2:41 PM
To: Nutton, Byron
Subject: RE: VFPA Arrangement

OK thanks.

I have to go out for a few. I have pretty much completed comments on the HB for VFPA but I want to go through the document one more time. I have quite a few comments.

s.19(1)

Will send later today, or else on the weekend – you will have it before Monday. I just took a look at LMs comments and agree with hers – have a few similar ones in my version as well, but some not ... so are you good to compile these next week? If not, I could try to do so before I go away.

LMK

S.

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**Pages 383 to / à 388
are duplicates of
sont des duplicatas des
pages 351 to / à 356**

Nutton, Byron

From: Olson, Charlotte <Charlotte.Olson@portvancouver.com>
Sent: 2018–April-24 6:14 PM
To: Nutton, Byron
Cc: Ruffo, Gord
Subject: Re: VFPA-DFO Indigenous Engagement Plan for the New Habitat Bank Arrangement
Attachments: image001.png

Hi Byron, thanks for the update.
Would you like a quick call this week to discuss?

[REDACTED]
[REDACTED] the request to add an additional Annex (related to Indigenous engagement) - we likely need to have additional discussion to see if we are aligned in that regard based on the feedback received.

We are also eager to hear the outcome of your & Al's discussion with Cheryl.

Please advise what might work, as we can make ourselves available for a call.

Regards,
Charlotte

On Apr 23, 2018, at 9:45 AM, Nutton, Byron <Byron.Nutton@dfo-mpo.gc.ca<mailto:Byron.Nutton@dfo-mpo.gc.ca>> wrote:

Hi Charlotte,

[REDACTED] I'm just back in the saddle this AM and will have this to you today.

Also, Al and I are discussing with Cheryl this AM so may have an update on possible extension as a back-up as well.

Byron

From: Olson, Charlotte [mailto:Charlotte.Olson@portvancouver.com]
Sent: 2018–April-13 10:25 AM
To: Nutton, Byron <Byron.Nutton@dfo-mpo.gc.ca<mailto:Byron.Nutton@dfo-mpo.gc.ca>>
Cc: Thorpe, Suzanne <Suzanne.Thorpe@dfo-mpo.gc.ca<mailto:Suzanne.Thorpe@dfo-mpo.gc.ca>>; Ruffo, Gord <Gord.Ruffo@portvancouver.com<mailto:Gord.Ruffo@portvancouver.com>>
Subject: RE: VFPA-DFO Indigenous Engagement Plan for the New Habitat Bank Arrangement

Good morning Byron

Further to our call on Monday April 6th about the below – are you still planning to respond to us Byron?

We are concerned about timelines as discussed.

An update would be appreciated, thank you.

Charlotte Olson P.Geo., PMP
Manager, Infrastructure Habitat Development

s.19(1)
s.21(1)(b)

CELL: 604.349.4111

From: Nutton, Byron [mailto:Byron.Nutton@dfo-mpo.gc.ca]
Sent: Thursday, April 05, 2018 11:17 AM
To: Ruffo, Gord <Gord.Ruffo@portvancouver.com<mailto:Gord.Ruffo@portvancouver.com>>
Cc: Thorpe, Suzanne <Suzanne.Thorpe@dfo-mpo.gc.ca<mailto:Suzanne.Thorpe@dfo-mpo.gc.ca>>; Olson, Charlotte
<Charlotte.Olson@portvancouver.com<mailto:Charlotte.Olson@portvancouver.com>>
Subject: RE: VFPA-DFO Indigenous Engagement Plan for the New Habitat Bank Arrangement

Hi Gord.

We have reviewed the document and Loriena, Suzanne and I do have some comments.

I am out of the office the rest of the day today, but am in tomorrow and will endeavour to collate and send them to you in the AM.

My schedule is open tomorrow afternoon...if you are available and would like to set up a short call to discuss please send me a meeting invite.

Cheers,

Byron

From: Ruffo, Gord [mailto:Gord.Ruffo@portvancouver.com]
Sent: 2018-March-22 10:42 AM
To: Nutton, Byron <Byron.Nutton@dfo-mpo.gc.ca<mailto:Byron.Nutton@dfo-mpo.gc.ca>>
Cc: Thorpe, Suzanne <Suzanne.Thorpe@dfo-mpo.gc.ca<mailto:Suzanne.Thorpe@dfo-mpo.gc.ca>>; Olson, Charlotte
<Charlotte.Olson@portvancouver.com<mailto:Charlotte.Olson@portvancouver.com>>
Subject: VFPA-DFO Indigenous Engagement Plan for the New Habitat Bank Arrangement

Hi Byron

Thanks for this edited version of the Arrangement that includes DFO feedback. We are reviewing these edits now and will be back to you with any additional comments or requested edits.

Attached is our proposed plan for Indigenous engagement on our new Arrangement. This plan is based on the objectives for this engagement that we discussed as part of our March 7 meeting. We have also included a schedule for this engagement within the plan that identifies the tasks and timelines required to have this process complete by August 15, 2018. We do require DFO's acceptance of this proposed plan which will then enable us to commence with its implementation. The schedule identifies that we require this acceptance by Wednesday April 4. Following receipt of this approval, we would commence the preparation of the Information Packages for DFO review.

Please let us know if you require any further information.
Both Charlotte and I appreciate your time and effort on this matter!

Gord Ruffo P.Eng.
Senior Project Manager
Habitat Enhancement Program

<image001.png>

Vancouver Fraser Port Authority
100 The Pointe, 999 Canada Place
Vancouver, B.C. Canada V6C 3T4

P: 604.665.9018 | CELL: 604.202.8022

portvancouver.com<<https://na01.safelinks.protection.outlook.com/?url=http%3A%2F%2Fwww.portvancouver.com%2F&data=01%7C01%7CGord.Ruffo%40portvancouver.com%7Cfc8a4a11e89a476bbe6808d4fe42588a%7C1297c82c23524c6cb0d09add5a067668%7C0&sdata=gydWgoKdqYjv0BN6yLVv1RVYjThhUXfQ07eDII0ZjTc%3D&reserved=0>>

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PORT of
vancouver

From: Nutton, Byron
To: [REDACTED]
Subject: RE: VFPA-DFO Habitat Enhancement Agreement
Date: 2018-April-25 9:55:00 AM

Great. Should I call you at the number below at 11:30?

From: [REDACTED]
Sent: 2018-April-25 3:54 AM
To: Nutton, Byron <Byron.Nutton@dfo-mpo.gc.ca>
Subject: Re: VFPA-DFO Habitat Enhancement Agreement

Byron, I am in Ottawa, and am free after 10 am you time. [REDACTED]

[REDACTED]
Tsleil-Waututh Nation
[REDACTED]

From: Nutton, Byron <Byron.Nutton@dfo-mpo.gc.ca>
Sent: April 23, 2018 1:47 PM
To: [REDACTED]
Subject: RE: VFPA-DFO Habitat Enhancement Agreement

s.19(1)

Hi [REDACTED]

It is my understanding that you will be meeting with Nick Winfield later this week to discuss Habitat Banking (and possibly other items as well?).

I know you and I have not talked in quite a while, and I'm not certain whether or not you had a chance to discuss with Diana in response to the e-mail below, so I was wondering if you are available for a short discussion to touch bases before you Ottawa meeting.

My calendar is open tomorrow morning, and on Wednesday I am busy from 930-11 but otherwise available. If you have the time and would like to schedule a short call please let me know a time that works for you.

Cheers,

Byron Nutton, RPBio

A/Team Lead | Chef d'équipe Intérimaire
Partnerships, Standards and Guidelines | Partenariats, Normes et lignes directrices
Fisheries Protection Program | Programme de protection des pêches

Fisheries and Oceans Canada | Pêches et Océans Canada
Pacific Region | Région du Pacifique

From: [REDACTED]
Sent: 2018-January-26 10:41 AM
To: Trager, Diana <Diana.Trager@dfo-mpo.gc.ca>
Cc: Nutton, Byron <Byron.Nutton@dfo-mpo.gc.ca>
Subject: VFPA-DFO Habitat Enhancement Agreement

Diana, I would like to set up a meeting with you in the near future to set up a meeting to discuss renewal of the DFO's agreement with the VFPA for their habitat bank. I previously met with Cheryl (and Byran) when she was in your position. I think its time for another check in. Thanks, [REDACTED]



Treaty, Lands, and Resources Department
Tsleil-Waututh Nation
3075 Takaya Drive
North Vancouver, BC V7H 3A8
Canada

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Pringle, Sarah

From: Webb, Cheryl
Sent: April-25-18 2:25 PM
To: Winfield, Nicholas
Subject: Fw: VFPA Habitat Bank

FYI, I will forward the current draft agreement to you later today.

Cheryl

Sent from my BlackBerry 10 smartphone on the Rogers network.

From: Nutton, Byron <Byron.Nutton@dfo-mpo.gc.ca>
Sent: Wednesday, April 25, 2018 2:08 PM
To: Webb, Cheryl
Cc: Magnan, Alain
Subject: VFPA Habitat Bank

Hi again Cheryl,

I spoke briefly with [REDACTED] this afternoon. Please see below for a high-level status summary, including both the information provided to you over the phone on Monday as well as updates from my call this AM.

1. DFO and VFPA have continued to work on developing a draft of a renewed Habitat Bank Arrangement based on the template included in the Guidance document, while recognizing some of the specific elements of the current Agreement
2. In consideration of the concerns raised by TWN, DFO has provided direction to VFPA to develop 2 additional documents required to support our consideration of a renewed Arrangement:
 - a. an Engagement Plan (in relation to all Indigenous groups within the proposed Service Area) to be actioned prior to executing a renewed Arrangement, led by VFPA with support as required by DFO
 - b. a Consultation Annex to be included in a renewed Arrangement that outlines how VFPA would engage and consult on the identification, consideration, development and construction of "conservation projects" under a renewed Arrangement

DFO has provided comments to VFPA on initial drafts of both these documents

3. DFO has continued to encourage VFPA to work with TWN to identify collaborative solutions to TWN concerns associated with VFPA's Habitat Enhancement Program, but which may be more appropriately addressed in a broader context than a renewed Arrangement
4. VFPA is reluctant to divert focus from a strategy that will result in the execution of a renewed Arrangement prior to expiration of the current Agreement this fall, but has expressed an interest in exploring options for an extension, if required, to allow for implementation of the Engagement Plan (see item 2a above).
5. In independent discussions, both VFPA and TWN have indicated to DFO that co-operation on a recent project has led to an improved relationship when discussing habitat banking, and TWN has recently indicated to DFO that this improved bi-lateral relationship may be an appropriate vehicle to explore solutions to their concerns, rather than solely in tri-partite discussions on a renewed Arrangement

6. DFO recently provided TWN with an update on the status of VFPA/DFO discussions on habitat banking and confirmed that DFO and VFPA have agreed to jointly reach out to TWN in the near future, particularly with respect to the development of the documents identified in items 2a and 2b above.

From: Nutton, Byron
Sent: 2018–April-24 1:19 PM
To: Webb, Cheryl <Cheryl.Webb@dfo-mpo.gc.ca>
Cc: Magnan, Alain <Alain.Magnan@dfo-mpo.gc.ca>
Subject: RE: Apr 23-26

Hi Cheryl,

In follow-up to our call, please see attached DRAFT Arrangement – this is the latest version, sent to VFPA March 16th for their consideration. It does NOT include the Consultation Annex which would outline how VFPA would engage and consult in the identification, consideration, development and construction of “conservation projects” – VFPA is re-working their initial draft based on our comments.

The other document being developed is the plan for engagement on the arrangement, to be completed before signing – again, VFPA is re-working their initial draft based on our comments.

I did reach out [REDACTED] but have not heard back. If I do connect with him I will provide you with an update.

Lastly, one item I forgot to mention on our call is the possibility for further extension to the current agreement to allow for meaningful engagement – we have made significant progress on all fronts but it has taken time and there have been some delays on my end. Further, as you know we are already engaging Indigenous groups fairly heavily at this time. VFPA is reluctant to move away from the goal of having a new, long term agreement by this fall, but given all of this they are interested in understanding the possibility of a “back-up” plan.

Cheers,

Byron

From: Magnan, Alain
Sent: 2018–April-12 8:33 PM
To: Webb, Cheryl <Cheryl.Webb@dfo-mpo.gc.ca>
Cc: Nutton, Byron <Byron.Nutton@dfo-mpo.gc.ca>
Subject: Fw: Apr 23-26

Hi Cheryl,

Byron has some updated lines on the port's habitat bank that we will try to send you tomorrow.

Al

s.19(1)

Sent from my BlackBerry 10 smartphone on the Rogers network.

From: Webb, Cheryl <Cheryl.Webb@dfo-mpo.gc.ca>

Sent: Thursday, April 12, 2018 8:17 AM
To: Magnan, Alain
Subject: FW: Apr 23-26

Can we discuss and then maybe provide a written update to Nick...

From: [REDACTED]
Sent: Thursday, April 12, 2018 8:14 AM
To: Winfield, Nicholas <Nicholas.Winfield@dfo-mpo.gc.ca>
Cc: Webb, Cheryl <Cheryl.Webb@dfo-mpo.gc.ca>
Subject: Apr 23-26

Nick, I will be in Ottawa April 23 to 26, in part to support Chief Thomas in her testimony before the Standing Committee on Environment and Sustainable Development on April 24 on C-69. If you time to meet with me that week, I would like to talk about the Habitat Enhancement agreement with VFPA. Thanks, [REDACTED]

[REDACTED]

Treaty, Lands, and Resources Department
Tsleil-Waututh Nation
3075 Takaya Drive
North Vancouver, BC V7H 3A8
Canada

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s.19(1)

Pringle, Sarah

Subject: Habitat Enhancement agreement with VFPA
Location: 200 Kent Street- Nick's Office or call 1-877-413-4788 ID# [REDACTED]
Start: Thu 26/04/2018 12:30 PM
End: Thu 26/04/2018 1:00 PM
Recurrence: (none)
Meeting Status: Accepted
Organizer: Winfield, Nicholas
Required Attendees: [REDACTED] Webb, Cheryl; Keenan, Jane

Please call 613-998-9088 upon arrival.

Thanks!

s.16(2)(c)

s.19(1)

From: [Nutton, Byron](#)
To: [Olson, Charlotte](#)
Subject: RE: TWN-VFPA-DFO Meeting proposed for Friday May 25th
Date: 2018-April-27 11:54:00 AM
Attachments: [image001.png](#)
[2018-04-27 DFO comments VFPA-DFO Indigenous Engagement Plan.docx](#)

Hi Charlotte.

1. I have blocked-off the day on May 25 to attend a meeting. I will confirm with Loriena and Suzanne with respect to their need/ability to attend, but regardless please feel free to confirm based on my attendance.
2. Please see attached draft plan with comments.

Cheers,

Byron

From: Olson, Charlotte [mailto:Charlotte.Olson@portvancouver.com]
Sent: 2018-April-26 12:29 PM
To: Nutton, Byron <Byron.Nutton@dfo-mpo.gc.ca>
Cc: Ruffo, Gord <Gord.Ruffo@portvancouver.com>; Scoble, Jemma <Jemma.Scoble@portvancouver.com>; Lien, Meaghan <Meaghan.Lien@portvancouver.com>
Subject: TWN-VFPA-DFO Meeting proposed for Friday May 25th
Importance: High

Good afternoon Byron,
We have a suggested meeting date from Tsleil-Waututh Nation to meet jointly with VFPA and DFO on May 25th – it is our understanding the key meeting focus would be the habitat banking arrangement.

Can you please confirm your availability so we can respond to TWN?

Of course, we would need to have a clear approach from all prior to meeting together on the 25th, for which we await your input.

This is very important to VFPA, and we would kindly appreciate a call or update on the next steps please.

Please respond if May 25th is something we can HOLD in our calendars (with TWN), for DFO to attend/participate.

Thank you,

Charlotte Olson P.Geo., PMP
Manager, Infrastructure Habitat Development



Vancouver Fraser Port Authority
100 The Pointe, 999 Canada Place
Vancouver, B.C. Canada V6C 3T4

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Habitat Enhancement Program

Indigenous Engagement Plan for Vancouver Fraser Port Authority's and Fisheries and Oceans Canada's Habitat Bank Arrangement

Rev 0 - March 21, 2018

1. Overview and Purpose

Vancouver Fraser Port Authority (VFPA) currently operates a habitat bank that was created through a formal agreement with Fisheries and Oceans Canada (DFO). This agreement will expire in September 2018 and as such, a new habitat bank agreement between VFPA and DFO is required. It is VFPA's and DFO's intent to enter into a new Habitat Bank Arrangement.

DFO regional representatives require that Indigenous groups be informed of the following:

- the VFPA Habitat Enhancement Program
- the Indigenous engagement and consultation process for projects that fall under the VFPA Habitat Enhancement Program
- VFPA and DFO's intent to enter into a new Habitat Bank Arrangement

This document outlines VFPA and DFO's approach to meet the above-listed requirements. It also identifies the Indigenous groups within the Service Area that will be engaged, proposed engagement activities and reporting, and a schedule with key timing considerations.

2. Service Area

For the purposes of VFPA's new Habitat Bank Arrangement with DFO, the Service Area will be defined as VFPA's navigational jurisdiction as depicted in Figure 1 below. VFPA would reserve the right, however, to negotiate the development of habitat projects outside of this defined Service Area, should an opportunity be identified.

VFPA and DFO recognize the history and contemporary interests of Indigenous peoples and work to establish and maintain productive relationships through Indigenous engagement, regular communication, and a desire to engage in mutually beneficial opportunities to enhance the Asia-Pacific Gateway.

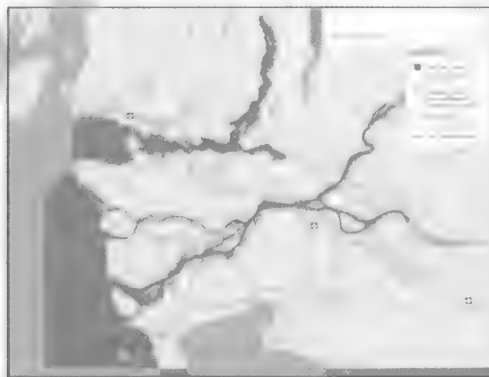


Figure 1

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Commented [A1]: Re-word. Eg. "...may wish to..."

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Commented [A2]: Not sure this is appropriate

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Vancouver Fraser Port Authority operates within the asserted traditional territories of 37 Coast Salish Indigenous groups and in proximity to the treaty settlement lands of the Tsawwassen First Nation.

The following Indigenous groups' asserted traditional territories or treaty lands intersect with the lands and waters managed by VFPA:

Musqueam Indian Band
Squamish Nation
Tsleil-Waututh Nation
Kwikwetlem First Nation
Katzie First Nation
Semiahmoo First Nation
Qayqayt First Nation
Hwlitsum

Sto:lo Nation

- Aitchelitz First Nation
- Leq'a:mel First Nation
- Matsqui First Nation
- Popkum First Nation
- Shxw'ha:y Village First Nation
- Skawahlook First Nation

Sto:lo Tribal Council

- Chawathil First Nation
- Cheam First Nation
- Kwantlen First Nation
- Kwaw-kwaw-Apilt First Nation
- Scowlitz First Nation
- Seabird Island First Nation
- Shxw'ow'hamel First Nation
- Skowkale First Nation
- Soowahlie First Nation
- Squiala First Nation
- Sumas First Nation
- Tzeachten First Nation
- Yakweakwoose First Nation

Hul'qumi'num Treaty Group

- Cowichan Tribes
- Halalt First Nation
- Lake Cowichan First Nation
- Lyackson First Nation
- Penelakut First Nation
- Stz'uminus First Nation

Saanich First Nations

- Pauquachin First Nation
- Tsawout First Nation
- Tsartlip First Nation
- Tseycum First Nation

Treaty Lands

- Tsawwassen First Nation

3. Engagement Process

In order to meet the requirements outlined in **Section 1** above, the following Indigenous engagement activities will be undertaken:

a) Sharing of Information Packages

Information packages will be shared with the Indigenous groups identified in **Section 2**.

These packages will include:

- A description of how habitat banks are used to offset serious harm to fisheries
- A description of how habitat credits are deposited into the habitat bank
- A description of how habitat credits may be withdrawn from the habitat bank and the DFO-led Indigenous consultation process associated with this withdrawal
- An overview of VFPA's Habitat Enhancement Program project-Indigenous consultation and engagement process for proposed habitat banking projects. This process demonstrates how VFPA intends to engage and

Commented [A3]: Assuming this will be shared by providing a revised "Habitat Enhancement Program: Aboriginal Consultation and Engagement Process"

Indigenous input and knowledge is will be considered, where appropriate, throughout the project identification, development, construction and post construction phases as well as opportunities for Indigenous participation (e.g. technical design review, fieldwork, monitoring, contracting, employment and training); as well as DFO reporting milestones to ensure compliance with the Arrangement.

- Other relevant materials (e.g. Habitat Enhancement Program presentations, project overview/information sheets, map of Habitat Enhancement Program projects, etc.).

VFPA will undertake follow up communications to confirm receipt of this information by Indigenous groups. VFPA will respond to any questions, comments and feedback from Indigenous groups received in advanced of focused information sessions (see below).

b) Information Sessions

Two information sessions (Lower Mainland and Vancouver Island) will be scheduled and invitations will be sent to the identified Indigenous groups. A proposed agenda will be provided in advance of the sessions. Key components of these information sessions will be as follows:

- Presentation of material included in the Information Packages
- Attendance and support from DFO regional staff
- Questions/feedback from Indigenous groups

Upon completion of the Information Sessions, a one-month response period will be provided to Indigenous groups to provide feedback. It is anticipated that additional information will be requested by Indigenous groups during this period. VFPA will respond to comments and questions from Indigenous groups and may require the support of DFO for these responses. Due to the time constraints identified below, timely responses to questions must be achieved.

c) Meetings and Other Engagement Activities

One-on-one meetings or other types of engagement activities (e.g. presentations to elders and/or leadership, community meetings) will be undertaken if preferred and as requested by Indigenous groups. VFPA has consulted Indigenous groups on projects within the Habitat Enhancement Program since the program's inception and has established ways of working with Indigenous groups. VFPA anticipates that several groups will request one-on-one meetings in lieu of, or in addition to, attendance at information sessions.

d) Reporting

At the conclusion of the engagement period, VFPA will prepare a document titled "Summary of Indigenous Engagement on VFPA's Habitat Bank Arrangement", which will include a

Commented [A4]: Will VFPA be providing funding to support Indigenous participation at the information sessions or one-on-one meetings?

Commented [A5]: Is the goal of these meetings to only share information? Will VFPA provide an opportunity for Indigenous groups to provide feedback before moving to the reporting stage? It should be anticipated that groups will want time to consider the information before providing meaningful input back to VFPA.

Commented [A6]: Understand that this is a requirement for VFPA/DFO but might be mis-construed in context of expectations being put on Indigenous groups.

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Commented [A7]: Who will this be shared with?

description of engagement activities, attendance records for the Information Sessions, list of supplemental information issued to address Indigenous questions, and a compilation of feedback received.

e) Schedule and Time Constraints

The schedule for the implementation of this engagement process is critical to the ongoing development of VFPA's habitat bank. A key time constraint is the expiration of VFPA's existing Working Agreement for Habitat Banking (September 10, 2018).

Commented [A8]: Consideration???

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The following schedule is planned:

Task 1	VFPA to submit Indigenous engagement process for Habitat Bank Arrangement to DFO	March 21, 2018
Task 2	DFO to provide written approval that the engagement process meets DFO requirements	April 4, 2018
Task 3	Preparation and DFO review of Information Packages	April 4 - April 25, 2018
Task 4	Distribution of Information Packages to Indigenous groups	May 1, 2018
Task 5	Information Session No. 1	May 16, 2018
Task 6	Information Session No. 2	May 30, 2018
Task 7	Information Session Comment Period	June 1 to June 22, 2018
Task 8	VFPA follow up with Indigenous groups	July 1 to July 31, 2018
Task 9	Preparation of <i>Summary of Indigenous Engagement on VFPA and DFO's Habitat Bank Arrangement</i>	August 1 to August 15, 2018
Task 10	Execution of VFPA and DFO's Habitat Bank Arrangement	August 16 to August 30, 2018

Commented [A9]: Suggest adding in the table detail on the offer to hold individual engagement sessions, as well as the time period to hold these sessions

Commented [A10]: Comment period is noted here but not described in previous section – what are the goals associated with this task?

Commented [A11]: Same comment as above

From: [Olson, Charlotte](mailto:Charlotte.Olson@portvancouver.com)
To: [Nutton, Byron](mailto:Byron.Nutton@dfo-mpo.gc.ca)
Subject: RE: TWN-VFPA-DFO Meeting proposed for Friday May 25th - Call Request
Date: 2018-May-02 11:28:01 AM
Attachments: [image001.png](#)

Thanks, that works for us – I just resent invite so please accept the new one for Tuesday, thanks again

From: Nutton, Byron [<mailto:Byron.Nutton@dfo-mpo.gc.ca>]
Sent: Wednesday, May 02, 2018 11:22 AM
To: Olson, Charlotte <Charlotte.Olson@portvancouver.com>
Subject: RE: TWN-VFPA-DFO Meeting proposed for Friday May 25th - Call Request

Hi Charlotte.

Monday doesn't work for me, but Suzanne and I could both do 11:00-noon on Tuesday.

Byron

From: Olson, Charlotte [<mailto:Charlotte.Olson@portvancouver.com>]
Sent: 2018-May-01 7:13 AM
To: Nutton, Byron <Byron.Nutton@dfo-mpo.gc.ca>
Cc: Ruffo, Gord <Gord.Ruffo@portvancouver.com>
Subject: RE: TWN-VFPA-DFO Meeting proposed for Friday May 25th - Call Request

Hi Byron, thank you for confirming your availability for May 25th. We will tentatively book that, however we have some work to do before we meet.

We will also take a look at the comments you have just provided on the March 21 document we sent DFO, but honestly, we are concerned that the plan is not clear moving forward – and the timing now is likely not achievable (timeline we had proposed to engage with groups, back in March).

May I please suggest a call, as VFPA requires clarity on moving forward considering it is already May 1st.

Please propose when you are available for a call, and we can be flexible to make it work. The objective of the call is to have a clear path forward for our new arrangement, and for you to please provide an update on your recent meeting with Cheryl Webb.

Thank you, Charlotte

From: Nutton, Byron [<mailto:Byron.Nutton@dfo-mpo.gc.ca>]
Sent: April-27-18 11:54 AM

To: Olson, Charlotte <Charlotte.Olson@portvancouver.com>

Subject: RE: TWN-VFPA-DFO Meeting proposed for Friday May 25th

Hi Charlotte.

1. I have blocked-off the day on May 25 to attend a meeting. I will confirm with Loriena and Suzanne with respect to their need/ability to attend, but regardless please feel free to confirm based on my attendance.
2. Please see attached draft plan with comments.

Cheers,

Byron

From: Olson, Charlotte [<mailto:Charlotte.Olson@portvancouver.com>]

Sent: 2018-April-26 12:29 PM

To: Nutton, Byron <Byron.Nutton@dfo-mpo.gc.ca>

Cc: Ruffo, Gord <Gord.Ruffo@portvancouver.com>; Scoble, Jemma <Jemma.Scoble@portvancouver.com>; Lien, Meaghan <Meaghan.Lien@portvancouver.com>

Subject: TWN-VFPA-DFO Meeting proposed for Friday May 25th

Importance: High

Good afternoon Byron,

We have a suggested meeting date from Tsleil-Waututh Nation to meet jointly with VFPA and DFO on May 25th – it is our understanding the key meeting focus would be the habitat banking arrangement.

Can you please confirm your availability so we can respond to TWN?

Of course, we would need to have a clear approach from all prior to meeting together on the 25th, for which we await your input.

This is very important to VFPA, and we would kindly appreciate a call or update on the next steps please.

Please respond if May 25th is something we can HOLD in our calendars (with TWN), for DFO to attend/participate.

Thank you,

Charlotte Olson P.Geo., PMP
Manager, Infrastructure Habitat Development



Vancouver Fraser Port Authority
100 The Pointe, 999 Canada Place
Vancouver, B.C. Canada V6C 3T4

P: 604.665.9590 | CELL: 604.349.4111
portvancouver.com

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Nutton, Byron

Subject: Call with VFPA HEP
Location: VFPA office – Vancouver Room (6) – 100 The Pointe, 999 Canada Place
Start: Tue 2018-05-08 11:00 AM
End: Tue 2018-05-08 12:00 PM
Recurrence: (none)
Meeting Status: Not yet responded
Organizer: Olson, Charlotte

Call moved to Tuesday May 8th, at 11am to accommodate DFO staff – please accept

It is important that we have this call, please advise an alternate time if this does not work Byron.

Proposed Agenda:

1. Review DFO comments on March 21 Indigenous Engagement plan – comments received April 27
2. Confirm next steps required to proceed
3. Update for VFPA – BN meeting with Cheryl Webb, and Arrangement
4. Other

Call Number:
604-216-6040

s.16(2)(c)

Thorpe, Suzanne

From: Olson, Charlotte <Charlotte.Olson@portvancouver.com>
Sent: Monday, May 14, 2018 9:12 AM
To: Nutton, Byron
Cc: Ruffo, Gord; Scoble, Jemma; Thorpe, Suzanne
Subject: VFPA-DFO Indigenous Engagement Plan-ACTION REQUIRED
Attachments: 2018-05-14-VFPA-DFO Indigenous Engmt Plan-FINAL-clean-Rev1.pdf; 2018-05-14-VFPA-DFO Indigenous Engmt Plan-FINAL-redline-Rev1.pdf; 2017-09-25-03-600-VFPA HEP Aboriginal Engmt Summary for DFO-DRAFT-Rev0.docx

Importance: High

Follow Up Flag: Follow up

Flag Status: Flagged

Good morning Byron,

Attached is the updated Indigenous Engagement Work Plan that we have finalized based on our discussion last week on May 8/18. We have also provided a redline version so you can see the changes that were made based on DFO's input.

Also attached is the September 2017 draft of our Aboriginal Engagement Summary that provides details on how VFPA will engage with Aboriginal groups as part of the development of specific habitat projects. This version remains unchanged since September. You were to provide us with a description of DFO's engagement/consultation process for the withdrawal of credits which is currently not included. As we will be commencing the development of the information packages this week, it would be helpful if you could provide us with this content.

Key next steps are:

1. Wednesday, May 16 (Priority) – DFO to provide written response to VFPA that the Indigenous Engagement Work Plan meets DFO requirements
2. May 17 – July 31 – Preparation and DFO review of Information Packages
3. May 17 – June 30 (Byron to confirm) DFO to issue an extension to VFPA's existing Working Agreement for Habitat Banking

Thank you, we look forward to hearing back from you this week.

Charlotte

Charlotte Olson P.Geo., PMP
Manager, Infrastructure Habitat Development



Vancouver Fraser Port Authority

100 The Pointe, 999 Canada Place
Vancouver, B.C. Canada V6C 3T4

P: 604.665.9590 | CELL: 604.349.4111

portvancouver.com

From: Olson, Charlotte

Sent: Thursday, May 10, 2018 5:50 PM

To: 'Nutton, Byron' <Byron.Nutton@dfo-mpo.gc.ca>

Cc: Ruffo, Gord <Gord.Ruffo@portvancouver.com>; Scoble, Jemma <Jemma.Scoble@portvancouver.com>

Subject: May 8 Call Follow Up with VFPA

Importance: High

Hi Byron, I am following up in regards to our conference call with Jemma Scoble on Tuesday May 8

On the call, we agreed the following:

1. VFPA to update the Indigenous Engagement work plan reflecting DFO's requested edits (discussed May 8); VFPA to send back to DFO on Monday May 14
2. DFO to review and provide written acceptance to VFPA next week that the revised work plan meets DFO requirements (target by May 16)
3. You were also to send us some text describing DFO's process for Indigenous consultation (e.g. at the time of credit withdrawal or use of credits) by the end of today – are you still sending this?

Please advise, we are on track to send you the revised work plan early next week; we require your written acceptance that it meets DFO's requirements, as discussed.

Thank you, Charlotte

Charlotte Olson P.Ge., PMP
Manager, Infrastructure Habitat Development



Habitat Enhancement Program

Indigenous Engagement Work Plan for Vancouver Fraser Port Authority's and Fisheries and Oceans Canada's Habitat Bank Arrangement

Rev 1 - May 14, 2018

1. Overview and Purpose

Vancouver Fraser Port Authority (VFPA) currently operates a habitat bank that was created through a formal agreement with Fisheries and Oceans Canada (DFO). This agreement will expire in September 2018 and as such, a new habitat bank agreement between VFPA and DFO is required. It is VFPA's and DFO's intent to enter into a new Habitat Bank Arrangement.

DFO regional representatives require that Indigenous groups be informed of the following:

- the VFPA Habitat Enhancement Program
- the Indigenous engagement and consultation process for projects that fall under the VFPA Habitat Enhancement Program
- VFPA and DFO's intent to enter into a new Habitat Bank Arrangement

This document outlines VFPA and DFO's approach to meet the above-listed requirements. It also identifies the Indigenous groups within the Service Area that will be engaged, proposed engagement activities and reporting, and a schedule with key timing considerations. The proposed schedule for the implementation of this work plan is directly related to the current expiration date of September 2018 for the existing agreement with DFO for VFPA's habitat bank. It is noted that this work plan is not anticipated to be complete until December 2018 and as such, an extension to the existing agreement will be required.

2. Service Area

For the purposes of VFPA's new Habitat Bank Arrangement with DFO, the Service Area will be defined as VFPA's navigational jurisdiction as depicted in Figure 1 below. VFPA may wish to, however, negotiate the development of habitat projects outside of this defined Service Area, should an opportunity be identified.

VFPA and DFO recognize the history and contemporary interests of Indigenous peoples and work to establish and maintain productive relationships through Indigenous engagement, regular communication and to ensure that the protection of fish and fish habitat is considered in the development of the Asia-Pacific Gateway.

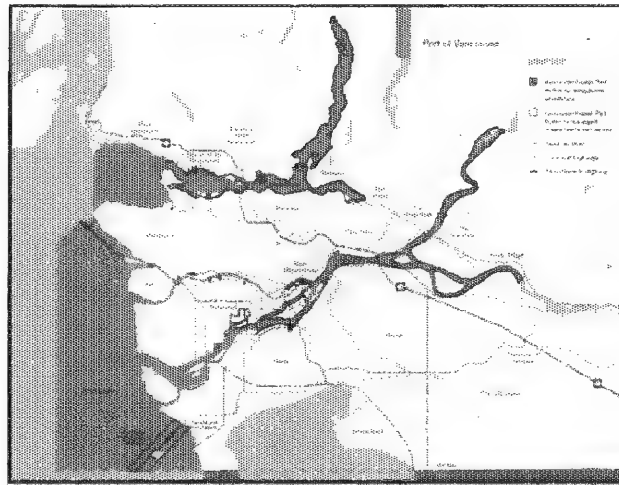


Figure 1

Vancouver Fraser Port Authority operates within the asserted traditional territories of 37 Coast Salish Indigenous groups and in proximity to the treaty settlement lands of the Tsawwassen First Nation.

The following Indigenous groups' asserted traditional territories or treaty lands intersect with the lands and waters managed by VFPA:

Musqueam Indian Band
Squamish Nation
Tsleil-Waututh Nation
Kwikwetlem First Nation
Katzie First Nation
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Qayqayt First Nation
Hwlitsum

Sto:lo Nation

- Aitchelitz First Nation
- Leq'a:mel First Nation
- Matsqui First Nation
- Popkum First Nation
- Shxw'ha:y Village First Nation
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Sto:lo Tribal Council

- Chawathil First Nation
- Cheam First Nation
- Kwantlen First Nation
- Kwaw-kwaw-Apilt First Nation
- Scowlitz First Nation
- Seabird Island First Nation
- Shxw'ow'hamel First Nation
- Skowkale First Nation
- Soowahlie First Nation
- Squiala First Nation
- Sumas First Nation
- Tzeachten First Nation
- Yakwekwioose First Nation

Hul'qumi'num Treaty Group

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- Halalt First Nation
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Saanich First Nations

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- Tsawout First Nation
- Tsartlip First Nation
- Tseycum First Nation

Treaty Lands

- Tsawwassen First Nation

3. Engagement Process

In order to meet the requirements outlined in **Section 1** above, the following Indigenous engagement activities will be undertaken:

a) Sharing of Information Packages

Information packages will be shared with the Indigenous groups identified in **Section 2**. These packages will include:

- A description of how habitat banks are used to offset serious harm to fisheries
- A description of how habitat credits are deposited into the habitat bank
- A description of how habitat credits may be withdrawn from the habitat bank and the DFO-led Indigenous consultation process associated with this withdrawal
- An overview of VFPA's *Aboriginal Consultation and Engagement Process* for proposed habitat banking projects. This process demonstrates how VFPA intends to engage and consult with Indigenous groups within the identified service area and identifies how Indigenous input and knowledge will be considered throughout the project identification, development, construction and post-construction phases. Opportunities for Indigenous participation (e.g. technical design review, fieldwork, monitoring, contracting, employment and training) will also be identified as well as the process for reporting back to Indigenous groups on feedback received.
- Other relevant materials (e.g. Habitat Enhancement Program presentations, project overview/information sheets, map of Habitat Enhancement Program projects, etc.).

VFPA will undertake follow up communications to confirm receipt of this information by Indigenous groups. VFPA will respond to any questions, comments and feedback from Indigenous groups received in advanced of focused information sessions (see below).

b) Information Sessions

Two information sessions (Lower Mainland and Vancouver Island) will be scheduled and invitations will be sent to the identified Indigenous groups. A proposed agenda will be provided in advance of the sessions. Key components of these information sessions will be as follows:

- Presentation of material included in the Information Packages
- Attendance and support from DFO regional staff
- Questions/feedback from Indigenous groups

Upon completion of the Information Sessions, a one-month response period will be provided to Indigenous groups to provide feedback. It is anticipated that additional information will

be requested by Indigenous groups during this period. VFPA will respond to comments and questions from Indigenous groups and may require the support of DFO for these responses. Due to the time constraints identified within this work plan, timely responses from DFO and VFPA to questions, must be achieved.

c) Meetings and Other Engagement Activities

One-on-one meetings or other types of engagement activities (e.g. presentations to elders and/or leadership, community meetings) will be undertaken if preferred and as requested by Indigenous groups. VFPA has consulted Indigenous groups on projects within the Habitat Enhancement Program since the program's inception and has established ways of working with Indigenous groups. VFPA anticipates that several groups will request one-on-one meetings in lieu of, or in addition to, attendance at information sessions.

d) Comment Period

A formal comment period will be established by VFPA and DFO to provide Indigenous groups a reasonable amount of time to provide feedback on VFPA and DFO's process for Indigenous engagement. The goal of this Comment Period is to allow Indigenous groups an opportunity to provide feedback.

e) VFPA/DFO Follow-up

All feedback received will be considered with responses issued to the Indigenous group. Where appropriate, refinements will be made to VFPA and DFO's process for Indigenous engagement to incorporate this feedback.

f) Reporting

At the conclusion of the engagement period, VFPA will prepare a document titled "*Summary of Indigenous Engagement on VFPA and DFO's Habitat Bank Arrangement*", which will include a description of engagement activities, attendance records for the Information Sessions, list of supplemental information issued to address Indigenous group questions, and a compilation of feedback received. This document will be shared with both DFO and the participating Indigenous groups.

g) Schedule and Time Constraints

The schedule for the implementation of this engagement process is critical to the ongoing development of VFPA's habitat bank. A key time consideration is the expiration of VFPA's existing Working Agreement for Habitat Banking (September 10, 2018).

The following schedule is planned:

Task 1	VFPA to submit final Indigenous engagement work plan (which includes DFO edits) for Habitat Bank Arrangement to DFO	May 14, 2018
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Task 2	DFO to provide written approval that the engagement process (work plan) meets DFO requirements	May 16, 2018
Task 3	Preparation and DFO review of Information Packages	May 17 - July 31, 2018
Task 4	Distribution of Information Packages to Indigenous groups	Aug 1, 2018
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Habitat Enhancement Program

Indigenous Engagement Work Plan for Vancouver Fraser Port Authority's and Fisheries and Oceans Canada's Habitat Bank Arrangement

Rev 1 - May 14, 2018

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This document outlines VFPA and DFO's approach to meet the above-listed requirements. It also identifies the Indigenous groups within the Service Area that will be engaged, proposed engagement activities and reporting, and a schedule with key timing considerations. The proposed schedule for the implementation of this work plan is directly related to the current expiration date of September 2018 for the existing agreement with DFO for VFPA's habitat bank. It is noted that this work plan is not anticipated to be complete until December 2018 and as such, an extension to the existing agreement will be required.

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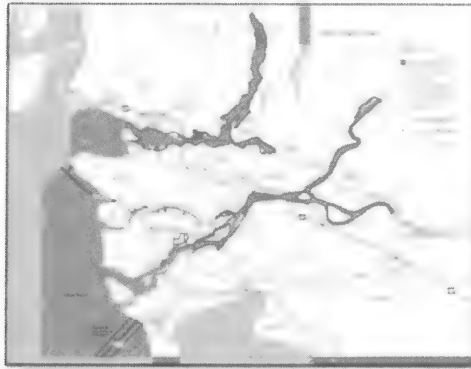


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Indigenous consultation and engagement process

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to ensure compliance with the Arrangement

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Task <u>12</u>	Execution of VFPA and DFO's Habitat Bank Arrangement	<u>Dec 14, 2018</u>

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Habitat Enhancement Program
Aboriginal Consultation and Engagement Process
(2017-2018)

DRAFT – September 25 2017 (Rev0)

Overview and Purpose

Aboriginal consultation and engagement is a key requirement for the successful delivery of habitat projects undertaken by VFPA's Habitat Enhancement Program (HEP). As such, a robust process was established that guides Aboriginal consultation and is closely aligned with broader VFPA obligations and objectives related to Aboriginal consultation and engagement. This document not only describes the process implemented by the Habitat Enhancement Program for consulting and engaging with Aboriginal groups, it also identifies key points during the process for Aboriginal input and involvement on habitat projects.

Program Overview

The Vancouver Fraser Port Authority Habitat Enhancement Program proactively creates and enhances habitat for fish and wildlife. VFPA's Working Agreement with Fisheries and Oceans Canada (DFO) allows VFPA to apply fish habitat credits from proven, functioning habitat to offset future projects with approval from DFO. In short, VFPA aims to balance future infrastructure development opportunities with a healthy environment.

It is important to note that development projects are designed first to avoid project effects on fish and fish habitat; using credits from the Habitat Enhancement Program is not the first choice to offset these potential effects. If effects cannot be completely avoided, then project teams incorporate mitigation into project design to reduce effects. Offsetting is only considered if these other options are unavailable or insufficient.

VFPA enhances or creates habitat in advance of projects that may need to offset effects to fish and fish habitat. To ensure the enhanced habitat continues to function well, VFPA undertakes regular monitoring guided by biologists and coastal engineers.

Aboriginal Consultation and Engagement

VFPA manages lands and waters that intersect the asserted and established traditional territories and treaty lands of several Coast Salish First Nations. VFPA recognizes the history and contemporary interests of Aboriginal Peoples and works to establish and maintain productive relationships through Aboriginal consultation, regular communication, and a desire to engage in mutually beneficial opportunities to enhance the Asia-Pacific Gateway.

An integral part of project development and implementation is the relationship between VFPA and Aboriginal communities. Over the past several years, there has been an evolving awareness and recognition of the critical importance of appropriately and effectively consulting and engaging with the various Aboriginal communities within the port's area of jurisdiction.

VFPA recognizes and respects that local Aboriginal communities and their leadership want meaningful and ongoing input into the planning, operation, and expansion of port facilities and related transportation infrastructure. Accordingly, the port is committed to continued and active engagement with Aboriginal groups who have interests that may potentially be impacted by HEP projects.

VFPA's consultation and engagement for HEP projects aims to identify and address project-related impacts, to design and implement appropriate mitigation measures, and to explore opportunities for Aboriginal involvement such as participation in field studies and/or employment, training and contracting.

VFPA will consult with Aboriginal groups on VFPA's updated DFO-VFPA "*Habitat Bank Arrangement*" prior to execution of the Arrangement. Consultation will be undertaken with all groups within VFPA's Service Area as described in the Arrangement. VFPA will also engage these groups to obtain input in relation to project identification and to provide regular program updates.

As appropriate, VFPA will also consult with Aboriginal groups on individual habitat projects. The project-specific consultation process is outlined in the following pages.

Where relevant, the Habitat Enhancement Program also undertakes consultation in accordance with the requirements of regulatory processes such as the VFPA Project Environmental Review Process. Regulatory agencies may also undertake consultation as part of their process in reviewing habitat enhancement projects.

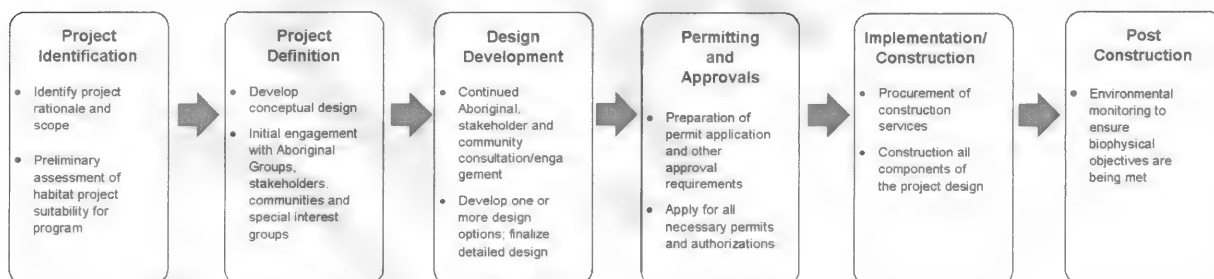
Project Development Process

The development of habitat enhancement projects is achieved through six basic project management phases that are used to guide and control the project from start to finish.

Commencing with the identification of a potential project, the process provides for the structured development and advancement of all required components required for project delivery.

- Phase 1 (**Project Identification**) – The “idea” or the vision of what could be achieved.
- Phase 2 (**Project Definition**) – What are the project objectives? Constraints?
- Phase 3 (**Design Development**) – How will the project objectives be achieved?
- Phase 4 (**Permitting and Approvals**) – Obtaining formal permission to perform the work.
- Phase 5 (**Implementation/Construction**) – Construction of the habitat project.
- Phase 6 (**Post Construction**) – Ensuring long-term success of the habitat project.

The illustration below depicts these six key project management phases and provides the key tasks associated with each.



Phase 1 - Project Identification



The identification of potential habitat projects is a critical component of the project delivery process. Consideration must be made for habitat need, habitat productivity, feasibility, cost, land tenure, DFO confirmation and Aboriginal considerations.

Aboriginal Consultation and Engagement

- HEP seeks input from Aboriginal groups on identification of potential habitat enhancement sites*
- HEP seeks input from Aboriginal groups on habitat enhancement projects identified by others*
- Aboriginal groups share available traditional knowledge, information and studies*

Phase 2 - Project Definition

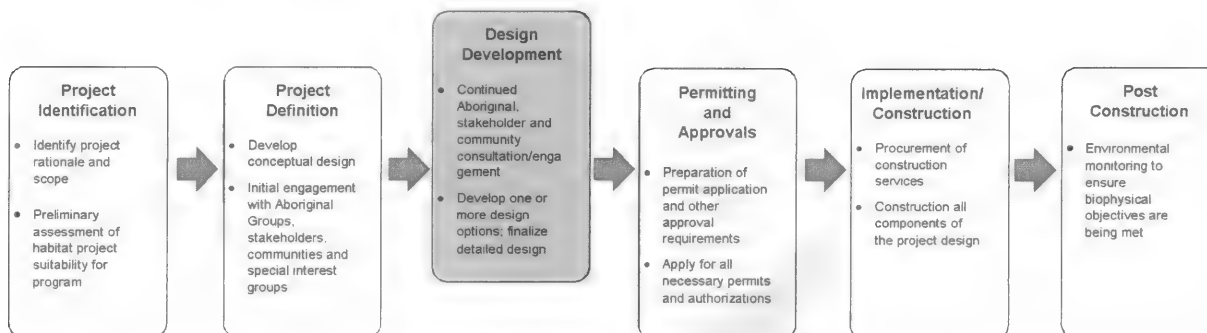


The development of conceptual designs is key in defining what a habitat project could include. Using these concept designs, initial engagement and consultation on specific project features can commence.

Aboriginal Consultation and Engagement

- *HEP consults Aboriginal groups on preferred engagement activities for project (e.g. Aboriginal Technical Design Committee)*
- *HEP consults Aboriginal groups on project concept*
- *HEP identifies potential habitat values (i.e. credit estimates) that could be created and engages with interested Aboriginal Groups*
- *Aboriginal groups share Traditional Knowledge with HEP*
- *HEP identifies opportunity for involving Aboriginal groups in field studies and assessments*
- *HEP commences planning for Aboriginal involvement throughout project (e.g. contracting, employment and training opportunities)*

Phase 3 - Design Development

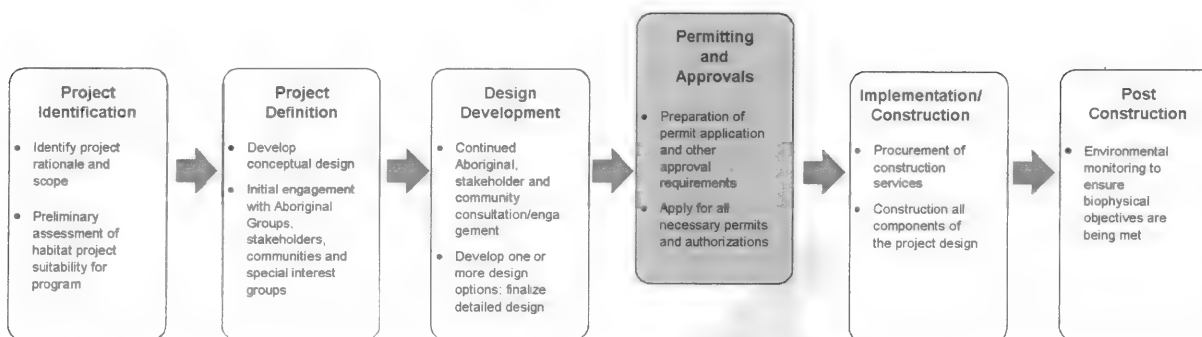


In the design phase, one or more designs are developed and evaluated. Through an iterative design process, a final design is selected and is refined to include all details necessary for construction.

Aboriginal Consultation and Engagement

- *HEP consults Aboriginal groups on the design options*
- *HEP considers Aboriginal feedback and refines design of project where appropriate (including selection of plant species)*
- *Where required, HEP undertakes further consultation with Aboriginal groups on the design*
- *HEP finalizes the design*
- *HEP shares final design with Aboriginal groups*
- *HEP confirms habitat values (i.e. credits) and consults with Aboriginal groups*
- *HEP obtains DFO confirmation of appropriateness of habitat project for the Habitat Enhancement Program*
- *HEP plans for continued Aboriginal involvement in subsequent phases*

Phase 4 - Permitting and Approvals



Permits and approvals that are required must be addressed on a project-by-project basis as regulatory requirements and land ownership can vary significantly.

Aboriginal Consultation and Engagement

- *HEP engages with Aboriginal groups in relation to permits and approvals*
- *HEP develops a summary of permits and approvals required and shares with Aboriginal groups*
- *HEP seeks Aboriginal input and support on permit applications*
- *HEP notifies Aboriginal groups on submission of permit applications*
- *Regulators and permitting authorities may undertake Aboriginal consultation*
- *HEP plans for continued Aboriginal involvement in subsequent phases*

Phase 5 -Implementation/Construction

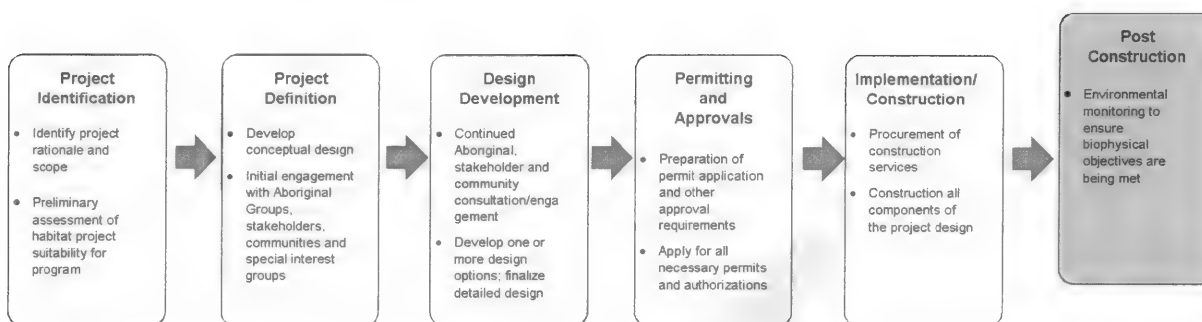


The habitat project truly takes shape during the Implementation/Construction Phase as all the effort

Aboriginal Consultation and Engagement

- *HEP identifies approach to procurement and determines opportunities for Aboriginal involvement/benefits*
- *HEP monitors conditions of approval/permits and any commitments to Aboriginal groups*
- *HEP continues to keep Aboriginal groups updated on progress of construction*
- *HEP plans for continued Aboriginal involvement in Post Construction Phase*

Phase 6- Post Construction



Aboriginal Consultation and Engagement

- *HEP shares Post Construction Monitoring Plan with Aboriginal groups*
- *Potential contracting opportunities for Aboriginal groups (e.g. maintenance, monitoring)*

Nutton, Byron

From: Olson, Charlotte <Charlotte.Olson@portvancouver.com>
Sent: 2018-May-18 1:09 PM
To: Nutton, Byron
Cc: Ruffo, Gord; Scoble, Jemma
Subject: Re: VFPA-DFO Indigenous Engagement Plan-ACTION REQUIRED

Thank you for this note Byron, VFPA really appreciates you getting back to us on the below.

We also appreciate your work on the extension letter, thank you for following up with Cheryl & Al.

Have a great long weekend and we look forward to seeing you next week.

Regards,
Charlotte

On May 18, 2018, at 11:33 AM, Nutton, Byron <Byron.Nutton@dfo-mpo.gc.ca<mailto:Byron.Nutton@dfo-mpo.gc.ca>> wrote:

Hi Charlotte,

Thanks again for your efforts to follow through on edits to the workplan. As discussed, I am happy with the revisions and am satisfied that we are able to move forward with implementation, and I look forward to our discussion with Tsleil-Waututh Nation next week.

I will share this final version internally with my Manager and Director, along with a request for consideration of a further extension to the existing banking agreement. Although I am in agreement that we should strive to meet the timeline in the workplan (December 2018), I will suggest the extension to at least the end of fiscal (March 2019) or perhaps a full year (September 2019) such that we have sufficient time to complete the engagement in a meaningful manner if additional time is required to address any unforeseen concerns or circumstances.

Regards,

Byron

From: Olson, Charlotte [mailto:Charlotte.Olson@portvancouver.com]
Sent: 2018-May-14 9:12 AM
To: Nutton, Byron <Byron.Nutton@dfo-mpo.gc.ca<mailto:Byron.Nutton@dfo-mpo.gc.ca>>
Cc: Ruffo, Gord <Gord.Ruffo@portvancouver.com<mailto:Gord.Ruffo@portvancouver.com>>; Scoble, Jemma <Jemma.Scoble@portvancouver.com<mailto:Jemma.Scoble@portvancouver.com>>; Thorpe, Suzanne <Suzanne.Thorpe@dfo-mpo.gc.ca<mailto:Suzanne.Thorpe@dfo-mpo.gc.ca>>
Subject: VFPA-DFO Indigenous Engagement Plan-ACTION REQUIRED
Importance: High

Good morning Byron,

Attached is the updated Indigenous Engagement Work Plan that we have finalized based on our discussion last week on May 8/18. We have also provided a redline version so you can see the changes that were made based on DFO's input.

Also attached is the September 2017 draft of our Aboriginal Engagement Summary that provides details on how VFPA will engage with Aboriginal groups as part of the development of specific habitat projects. This version remains unchanged since September. You were to provide us with a description of DFO's engagement/consultation process for the withdrawal of credits which is currently not included. As we will be commencing the development of the information packages this week, it would be helpful if you could provide us with this content.

Key next steps are:

1. Wednesday, May 16 (Priority) – DFO to provide written response to VFPA that the Indigenous Engagement Work Plan meets DFO requirements
2. May 17 – July 31 – Preparation and DFO review of Information Packages
3. May 17 – June 30 (Byron to confirm) DFO to issue an extension to VFPA's existing Working Agreement for Habitat Banking

Thank you, we look forward to hearing back from you this week.
Charlotte

Charlotte Olson P.Ge., PMP
Manager, Infrastructure Habitat Development

<image001.png>

Vancouver Fraser Port Authority
100 The Pointe, 999 Canada Place
Vancouver, B.C. Canada V6C 3T4

P: 604.665.9590 | CELL: 604.349.4111

portvancouver.com<<https://na01.safelinks.protection.outlook.com/?url=http%3A%2F%2Fwww.portvancouver.com%2F&data=01%7C01%7CCharlotte.Olson%40portvancouver.com%7Ce621749c0a5747cce70f08d5bcedcd75%7C1297c82c23524c6cb0d09add5a067668%7C0&sdata=NTVnSZE3kLM%2FyfIvI01zNb0CQ1j0C1%2B6Zlnw%2FazrQRY%3D&reserved=0>>
>

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Sent: Thursday, May 10, 2018 5:50 PM
To: 'Nutton, Byron' <Byron.Nutton@dfo-mpo.gc.ca<mailto:Byron.Nutton@dfo-mpo.gc.ca>>
Cc: Ruffo, Gord <Gord.Ruffo@portvancouver.com<mailto:Gord.Ruffo@portvancouver.com>>; Scoble, Jemma <Jemma.Scoble@portvancouver.com<mailto:Jemma.Scoble@portvancouver.com>>
Subject: May 8 Call Follow Up with VFPA
Importance: High

Hi Byron, I am following up in regards to our conference call with Jemma Scoble on Tuesday May 8

On the call, we agreed the following:

1. VFPA to update the Indigenous Engagement work plan reflecting DFO's requested edits (discussed May 8); VFPA to send back to DFO on Monday May 14
2. DFO to review and provide written acceptance to VFPA next week that the revised work plan meets DFO requirements (target by May 16)

3. You were also to send us some text describing DFO's process for Indigenous consultation (e.g. at the time of credit withdrawal or use of credits) by the end of today – are you still sending this?

Please advise, we are on track to send you the revised work plan early next week; we require your written acceptance that it meets DFO's requirements, as discussed.

Thank you, Charlotte

Charlotte Olson P.Geo., PMP
Manager, Infrastructure Habitat Development

No information has been removed or severed from this page

Nutton, Byron

Subject: CONFIRMED-Prep Meeting at VFPA
Location: VFPA office – Salish B Room (10) – 100 The Pointe, 999 Canada Place
Start: Thu 2018-05-24 3:30 PM
End: Thu 2018-05-24 4:30 PM
Recurrence: (none)
Meeting Status: Not yet responded
Organizer: Olson, Charlotte

This prep. meeting at VFPA is confirmed at VFPA at 330pm May 24 – thanks Byron!

Prep meeting discussion, prior to our confirmed meeting with TWN on Friday May 25.
If you are in Vancouver, we can meet at VFPA OR – we can do a conference call (number below).

Please accept to confirm your availability for this prep, thank you

Call Number:
604-216-6040

s.16(2)(c)

Regards, Charlotte

Nutton, Byron

Subject: HOLD-TWN Meeting with VFPA and DFO
Location: TWN, North Vancouver

Start: Fri 2018-05-25 10:00 AM
End: Fri 2018-05-25 12:00 PM
Show Time As: Out of Office

Recurrence: (none)

Meeting Status: Not yet responded

Organizer: Olson, Charlotte

Hi Byron, please accept this HOLD meeting slot to meet with TWN in North Vancouver – assuming we have signed off on the Indigenous engagement workplan.

Thanks, Charlotte

No information has been removed or severed from this page

Melnick, Lorienta

Subject: Habitat Bank discussion with Tseil-watuth

Start: Fri 5/25/2018 12:00 AM

End: Sat 5/26/2018 12:00 AM

Show Time As: Tentative

Recurrence: (none)

Organizer: Melnick, Lorienta

No information has been removed or severed from this page

From: [Nutton, Byron](#)
To: [Melnick, Loriena](#)
Subject: RE: VFPA habitat bank
Date: 2018-June-01 4:15:00 PM

Thanks!

From: Melnick, Loriena
Sent: 2018-June-01 4:03 PM
To: Nutton, Byron <Byron.Nutton@dfo-mpo.gc.ca>
Subject: RE: VFPA habitat bank

Some proposed changes:

Consultation with Indigenous peoples is required when Fisheries and Oceans Canada (DFO) makes a regulatory decision that may adversely impact potential or established Aboriginal or treaty rights, Indigenous groups and their related interests. Under the fisheries protection provisions (removed capitalization) of the *Fisheries Act*, a regulatory decision occurs when DFO contemplates the decision to authorize a work, undertaking or activity under Section 35(2)(b) of the *Fisheries Act*. Indigenous consultation will normally take place after DFO has received an Application for Authorization and determined that the information requirements set out in the *Applications for Authorization under Paragraph 35(2)(b) of the Fisheries Act Regulations* have been met.

DFO will consult on the work, undertaking or activity being authorized under Section 35(2)(b) of the *Fisheries Act* and any other aspects of the Authorization that have the potential to adversely impact potential or established Aboriginal or treaty rights, and their related interests. The goal of these consultations will be to identify measures to avoid, minimise, or if required accommodate for, potential impacts of the work, undertaking or activity on the rights or interests of Indigenous peoples through mitigation and offsetting to be incorporated into the Authorization.

~~As such, the proposed use of habitat banking credits to meet offsetting requirements would be a subject to consultation.~~

As the purpose of using habitat banking credits is to meet offsetting requirements for the work, undertaking or activity being authorized under section 35(2)(b) of the *Fisheries Act*, the proposed use of any habitat bank credit is subject to Indigenous consultation.

Loriena Melnick

Senior Fisheries Protection Biologist | Biologiste principal de la protection des pêches
Fisheries Protection Program | Programme de protection des pêches
Fisheries & Oceans Canada | Pêches et Océans Canada
Pacific Region | Région du Pacifique
3190 Hammond Bay Road | Nanaimo, BC | V9T 6N7
Loriena.Melnick@dfo-mpo.gc.ca | (O) 250- 756-7269 | (C) 250-618-7561

FPP National Website – Projects Near Water: <http://www.dfo-mpo.gc.ca/pnw-ppe/index-eng.html>

PPP Site Web National – Projets Pres de l'eau: <http://www.dfo-mpo.gc.ca/pnw-ppe/index-fra.html>

From: Nutton, Byron
Sent: June-01-18 10:13 AM
To: Melnick, Loriena
Subject: VFPA habitat bank

Hey Loriena,

One of the outstanding pieces of describing the consultation process associated with VFPA habitat banking is for me to provide a blurb on the withdrawal of credits. I have read through various documents, but it seems to me that the text from the guidance you and Tola developed for staff is pretty close to what I was envisioning.

I have made a few tweaks. The sections below are:

1. My proposed modifications with additions (green) and deletions (strikethrough) identified,
2. Clean version of modified text, and
3. Original unmodified text.

Can you please have a look at this and let me know what you think? Are there any red flags with this being external? Does it seem adequate? I know we have asked for quite a bit more from VFPA, but in my mind that is warranted as it is the "new" stuff related to the bank itself, where our part is simply confirming that for the purposes of consultation, the use of credits is treated just like conventional offsetting.

In addition, VFPA has proposed a couple options for a 1 hour meeting or call to touch bases on this stuff - June 25 at 11am or June 26 at 10am. Would you be able to attend either of these?

Thanks,

Byron

1. Tracked Changes

Consultation with Indigenous peoples is required when **Fisheries and Oceans Canada** (DFO) makes a regulatory decision that may adversely impact potential or established Aboriginal or Treaty rights, Indigenous groups and their related interests. Under the Fisheries Protection Provisions of the *Fisheries Act* a regulatory decision occurs when DFO contemplates the decision to authorize a work, undertaking or activity under Section 35(2)(b) of the *Fisheries Act*.

~~As such,~~ Indigenous consultations will normally take place after ~~if~~ **we** have received an Application for Authorization and determined that the information requirements set out in the **applications for Authorization under Paragraph 35(2)(b) of the Fisheries Act Regulation** have been met, prior to or during the 90 day time period. While there may be circumstances where it will be determined that it is appropriate to consult during the 60 day time period, for example in order to determine if the

information requirements have been met, it is not expected to occur on a regular basis. After the information requirements have been determined to be met, if things change during review of the application, such as the requirement for additional information, or alterations to the proposed mitigation or offsetting plans during consultations in order to avoid, minimize or accommodate for impacts to Indigenous groups, than that information can be acquired from the proponents.

DFO Staff will consult on the work, undertaking or activity being Authorized under Section 35(2)(b) of the *Fisheries Act* and any other aspects of the Authorization that has the potential to adversely impact potential or established Aboriginal or Treaty rights, and their related interests. **he go**

These consultations will be to identify measures to Staff will work to avoid, minimise, or if required accommodate for, potential impacts of the work, undertaking or activity on the rights or interests of Indigenous peoples through mitigation and offsetting to be incorporated into the Authorization. As such, **the proposed use of habitat banking credits to meet offsetting requirements would be subject to consultation** the authorization itself (or draft) should not need to be shared with Indigenous groups during consultations unless approved by the RD.

~~Treaty obligations may affect how or why we consult, but that will be specific to the requirements of each treaty.~~

2. Clean

Consultation with Indigenous peoples is required when Fisheries and Oceans Canada (DFO) makes a regulatory decision that may adversely impact potential or established Aboriginal or Treaty rights, Indigenous groups and their related interests. Under the Fisheries Protection Provisions of the *Fisheries Act* a regulatory decision occurs when DFO contemplates the decision to authorize a work, undertaking or activity under Section 35(2)(b) of the *Fisheries Act*. Indigenous consultations will normally take place after DFO has received an Application for Authorization and determined that the information requirements set out in the *Applications for Authorization under Paragraph 35(2)(b) of the Fisheries Act Regulations* have been met.

DFO will consult on the work, undertaking or activity being authorized under Section 35(2)(b) of the *Fisheries Act* and any other aspects of the Authorization that have the potential to adversely impact potential or established Aboriginal or Treaty rights, and their related interests. The goal of these consultations will be to identify measures to avoid, minimise, or if required accommodate for, potential impacts of the work, undertaking or activity on the rights or interests of Indigenous peoples through mitigation and offsetting to be incorporated into the Authorization.

As such, the proposed use of habitat banking credits to meet offsetting requirements would be a subject to consultation.

3. Original

Consultation with Indigenous peoples is required when DFO makes a regulatory decision that may adversely impact potential or established Aboriginal or Treaty rights, Indigenous groups and their

related interests. Under the Fisheries Protection Provisions of the *Fisheries Act* a regulatory decision occurs when DFO contemplates the decision to authorize a work, undertaking or activity under Section 35(2) (b) of the *Fisheries Act*.

As such, Indigenous consultations will normally take place after we have received an Application for Authorization and determined that the information requirements have been met, prior to or during the 90 day time period. While there may be circumstances where it will be determined that it is appropriate to consult during the 60 day time period, for example in order to determine if the information requirements have been met, it is not expected to occur on a regular basis. After the information requirements have been determined to be met, if things change during review of the application, such as the requirement for additional information, or alterations to the proposed mitigation or offsetting plans during consultations in order to avoid, minimize or accommodate for impacts to Indigenous groups, than that information can be acquired from the proponents.

Staff will consult on the work, undertaking or activity being Authorized under Section 35(2)(b) of the Fisheries Act and any other aspects of the Authorization that has the potential to adversely impact potential or established Aboriginal or Treaty rights, and their related interests. Staff will work to avoid, minimise, or if required accommodate for, potential impacts of the work, undertaking or activity on the rights or interests of Indigenous peoples through mitigation and offsetting to be incorporated into the Authorization. As such, the authorization itself (or draft) should not need to be shared with Indigenous groups during consultations unless approved by the RD.

Treaty obligations may affect how or why we consult, but that will be specific to the requirements of each treaty.

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From: [Olson, Charlotte](#)
To: [Nutton, Byron](#)
Subject: RE: Consultation Annex to renewed Habitat banking Arrangement - and meeting in late June - invites sent
Date: 2018-June-06 9:27:41 AM

Hi there, I am away next week so I'd like to confirm the meeting dates proposed – can you please advise what works for you guys?

Thanks

Charlotte Olson P.Geo., PMP
Manager, Infrastructure Habitat Development

CELL: 604.349.4111

From: Nutton, Byron [<mailto:Byron.Nutton@dfo-mpo.gc.ca>]
Sent: Friday, June 01, 2018 8:42 AM
To: Olson, Charlotte <Charlotte.Olson@portvancouver.com>
Subject: RE: Consultation Annex to renewed Habitat banking Arrangement - and meeting in late June - invites sent

You bet. I'll let you know Monday when Suzanne's back in the office – I want to ensure she is available as well.

From: Olson, Charlotte [<mailto:Charlotte.Olson@portvancouver.com>]
Sent: 2018-May-31 4:14 PM
To: Nutton, Byron <Byron.Nutton@dfo-mpo.gc.ca>
Subject: RE: Consultation Annex to renewed Habitat banking Arrangement - and meeting in late June - invites sent

Hi Byron, as follow up to my email below – I have sent you 2 suggested meeting dates by calendar invite (June 25 at 11am; or June 26 at 10am) – please accept one of those meeting/call invites or respond with an alternate suggestion.

We also still await DFO's text.

Thank you!
Charlotte

From: Olson, Charlotte
Sent: Monday, May 28, 2018 2:38 PM
To: 'Nutton, Byron' <Byron.Nutton@dfo-mpo.gc.ca>; Ruffo, Gord <Gord.Ruffo@portvancouver.com>
Cc: Melnick, Lorigena <Lorigena.Melnick@dfo-mpo.gc.ca>; Scoble, Jemma <Jemma.Scoble@portvancouver.com>
Subject: RE: Consultation Annex to renewed Habitat banking Arrangement

Thanks for the note Byron.

Understood, as discussed, we are working with senior folks at VFPA right now on the arrangement version (comments) you recently sent us – so we will absolutely ensure DFO's input regarding the Annex is communicated for sure, noted.

In the interim Byron, can you please send us the DFO-led consultation text? You had noted you would be providing it to us.

Thanks again for the meeting on Friday, we appreciated you coming over. And thanks also for your work below regarding our engagement plan, as well as an extension letter, much appreciated.

Regards,

Charlotte Olson P.Geo., PMP
Manager, Infrastructure Habitat Development

CELL: 604.349.4111

From: Nutton, Byron [<mailto:Byron.Nutton@dfo-mpo.gc.ca>]

Sent: Monday, May 28, 2018 11:26 AM

To: Olson, Charlotte <Charlotte.Olson@portvancouver.com>; Ruffo, Gord <Gord.Ruffo@portvancouver.com>

Cc: Melnick, Lorigena <Lorigena.Melnick@dfo-mpo.gc.ca>; Scoble, Jemma <Jemma.Scoble@portvancouver.com>

Subject: Consultation Annex to renewed Habitat banking Arrangement

Hi Charlotte and Gord,

In follow-up to part of our discussion last week, specifically the consideration of whether or not to include the consultation framework as an Annex to the Arrangement, I have had a brief discussion with Lorigena this morning. She confirmed my opinion which I shared with you, that the inclusion of the Consultation framework as an Annex to the Arrangement was/is a key element in our consideration of the adequacy of the overall approach for engagement on the Arrangement itself. In the absence of this element, we would need to re-consider our recommendation to our management, and as such I think it may be worth a follow-up discussion on this item specifically.

In the meantime, I will still move forward with briefing-up on the current engagement plan and request for an extension to accommodate it, but I suspect that we will need to resolve the discussion on the inclusion (or not) of the consultation framework as an Annex to the Arrangement as part of moving that request forward.

Lorigena and I are happy to discuss further at your convenience.

Regards,

Byron Nutton, RPBio

A/Team Lead | Chef d'équipe Intérimaire

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Pacific Region | Région du Pacifique

No information has been removed or severed from this page

From: Cooper, Tola
To: Nutton, Byron; Magnan, Alain
Subject: RE: blurb on consultation regarding use of banking credits
Date: 2018-June-07 9:33:14 AM

Sorry Byron – I did review this, had a few comments and then forgot to send them on!

The wording as of today is accurate, but there a few things we are not clear of related to the Amendments. For instance, groups have complained that they are not consulted when Habitat Banks are created even though it may affect their lands and credits will be used in offsetting decisions down the road. Furthermore, it is likely groups will be contacted when proponents apply for an authorization moving forward.

I wondering if we should include some language about the review / amendments and that we will update on any changes moving forward...

Let me know if you want to discuss!

From: Nutton, Byron
Sent: June-04-18 9:38 AM
To: Magnan, Alain; Cooper, Tola
Subject: blurb on consultation regarding use of banking credits

Hey guys,

As part of the VFPA banking renewal, they have developed a "consultation annex" that explains their process for developing conservation projects – from early engagement to identify potential projects, through design and construction, and even monitoring. To be complete, we figured best to include a step on use of credits, so I read a few documents and made a few attempts myself, but then read the blurb that Tola and Loriena developed for the introduction to the internal process map/template letters – it was pretty close to what I had envisioned.

Loriena and I have made a few tweaks to that text and I am proposing the following:

Consultation with Indigenous peoples is required when Fisheries and Oceans Canada (DFO) makes a regulatory decision that may adversely impact potential or established Aboriginal or treaty rights, Indigenous groups and their related interests. Under the fisheries protection provisions of the *Fisheries Act*, a regulatory decision occurs when DFO contemplates the decision to authorize a work, undertaking or activity under Section 35(2)(b) of the *Fisheries Act*. Indigenous consultation will normally take place after DFO has received an Application for Authorization and determined that the information requirements set out in the *Applications for Authorization under Paragraph 35(2)(b) of the Fisheries Act Regulations* have been met.

DFO will consult on the work, undertaking or activity being authorized under Section 35(2)(b) of the *Fisheries Act* and any other aspects of the Authorization that have the potential to adversely impact potential or established Aboriginal or treaty rights, and related interests.

The goal of these consultations will be to identify measures to avoid, minimise, or if required accommodate for, potential impacts of the work, undertaking or activity on the rights or interests of Indigenous peoples through mitigation and offsetting to be incorporated into the Authorization.

As the purpose of utilizing habitat banking credits is to meet offsetting requirements of an Authorization issued under section 35(2)(b) of the *Fisheries Act*, the proposed use of habitat banking credits is subject to Indigenous consultation.

I don't think there is anything controversial in here, but can you please let me know what you think – are there any red flags with providing this externally?

Thanks,

Byron Nutton, RPBio

A/Team Lead | Chef d'équipe Intérimaire
Partnerships, Standards and Guidelines | Partenariats, Normes et lignes
directrices
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Fisheries and Oceans Canada | Pêches et Océans Canada
Pacific Region | Région du Pacifique

250-618-4268

Thorpe, Suzanne

From: Olson, Charlotte <Charlotte.Olson@portvancouver.com>
Sent: Friday, June 8, 2018 1:09 PM
To: Nutton, Byron
Cc: Thorpe, Suzanne; Melnick, Loriena
Subject: RE: Consultation Annex to renewed Habitat banking Arrangement - and meeting in late June - invites sent

Excellent, thank you very much for this Byron.

great timing. Have a good weekend all.

Charlotte Olson P.Geo., PMP
Manager, Infrastructure Habitat Development

CELL: 604.349.4111

From: Nutton, Byron [mailto:Byron.Nutton@dfo-mpo.gc.ca]
Sent: Friday, June 08, 2018 1:03 PM
To: Olson, Charlotte <Charlotte.Olson@portvancouver.com>
Cc: Thorpe, Suzanne <Suzanne.Thorpe@dfo-mpo.gc.ca>; Melnick, Loriena <Loriena.Melnick@dfo-mpo.gc.ca>
Subject: RE: Consultation Annex to renewed Habitat banking Arrangement - and meeting in late June - invites sent

Hey Charlotte,

Here is the information that we prepared explaining DFO's consultation on use of credits to round out the Consultation Annex.

Cheers,

Byron

Consultation with Indigenous peoples is required when Fisheries and Oceans Canada (DFO) makes a regulatory decision that may adversely impact potential or established Aboriginal or treaty rights, Indigenous groups and their related interests. Under the fisheries protection provisions of the *Fisheries Act*, a regulatory decision occurs when DFO contemplates the decision to authorize a work, undertaking or activity under Section 35(2)(b) of the *Fisheries Act*. Indigenous consultation will normally take place after DFO has received an Application for Authorization and determined that the information requirements set out in the *Applications for Authorization under Paragraph 35(2)(b) of the Fisheries Act Regulations* have been met.

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s.21(1)(b)

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From: Olson, Charlotte [<mailto:Charlotte.Olson@portvancouver.com>]

Sent: 2018-May-31 4:14 PM

To: Nutton, Byron <Byron.Nutton@dfo-mpo.gc.ca>

Subject: RE: Consultation Annex to renewed Habitat banking Arrangement - and meeting in late June - invites sent

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Thank you!
Charlotte

From: Olson, Charlotte

Sent: Monday, May 28, 2018 2:38 PM

To: 'Nutton, Byron' <Byron.Nutton@dfo-mpo.gc.ca>; Ruffo, Gord <Gord.Ruffo@portvancouver.com>

Cc: Melnick, Lorigena <Lorigena.Melnick@dfo-mpo.gc.ca>; Scoble, Jemma <Jemma.Scoble@portvancouver.com>

Subject: RE: Consultation Annex to renewed Habitat banking Arrangement

Thanks for the note Byron.

Understood, as discussed, we are working with senior folks at VFPA right now on the arrangement version (comments) you recently sent us – so we will absolutely ensure DFO's input regarding the Annex is communicated for sure, noted.

In the interim Byron, can you please send us the DFO-led consultation text? You had noted you would be providing it to us.

Thanks again for the meeting on Friday, we appreciated you coming over. And thanks also for your work below regarding our engagement plan, as well as an extension letter, much appreciated.

Regards,

Charlotte Olson P.Geo., PMP
Manager, Infrastructure Habitat Development

CELL: 604.349.4111

From: Nutton, Byron [<mailto:Byron.Nutton@dfo-mpo.gc.ca>]

Sent: Monday, May 28, 2018 11:26 AM

To: Olson, Charlotte <Charlotte.Olson@portvancouver.com>; Ruffo, Gord <Gord.Ruffo@portvancouver.com>

Cc: Melnick, Lorigena <Lorigena.Melnick@dfo-mpo.gc.ca>; Scoble, Jemma <Jemma.Scoble@portvancouver.com>

Subject: Consultation Annex to renewed Habitat banking Arrangement

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confirmed my opinion which I shared with you, that the inclusion of the Consultation framework as an Annex to the Arrangement was/is a key element in our consideration of the adequacy of the overall approach for engagement on the Arrangement itself. In the absence of this element, we would need to re-consider our recommendation to our management, and as such I think it may be worth a follow-up discussion on this item specifically.

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Loriena and I are happy to discuss further at your convenience.

Regards,

Byron Nutton, RPBio

A/Team Lead | Chef d'équipe Intérimaire
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Fisheries and Oceans Canada | Pêches et Océans Canada
Pacific Region | Région du Pacifique

From: [Nutton, Byron](#)
To: [Magnan, Alain](#)
Subject: Fw: VFPA's Agreement for Habitat Banking - Extension
Date: 2018-June-20 8:06:46 AM
Attachments: [image001.png](#)
[image002.png](#)
[VFPA Habitat Banking Agreement.pdf](#)

Hey Al, as discussed, I'm working on getting you something on this - I'll be working at RHQ tomorrow then back at PBS Friday.

Sent from my BlackBerry 10 smartphone on the Rogers network.

From: Assier, Gilles <Gilles.Assier@portvancouver.com>
Sent: Tuesday, June 19, 2018 7:48 PM
To: Webb, Cheryl
Cc: Nutton, Byron; Olson, Charlotte; Ruffo, Gord
Subject: VFPA's Agreement for Habitat Banking - Extension

Hi Cheryl,

Hope you are doing well. My staff has been diligently working with Byron to secure both an additional extension to our existing Working Agreement with DFO for habitat banking as well as a new long-term Arrangement. The extension of our existing Working Agreement is required to accommodate a Fall consultation program with Indigenous groups on the new Arrangement as it currently expires on September 10th of this year. (I have attached a copy of the current extension for your reference). I understand that there is a mutual objective of having the new Arrangement in place by the end of this calendar year.

As our habitat bank is a significant commitment and investment, ensuring that a valid agreement with DFO is in place is essential. It would be very helpful, and appreciated, if we could secure the requested extension well ahead of the September 10 expiry date. Could you please provide me with the anticipated timeline for issuing this extension? Also, please let me know if you need any further information from VFPA regarding this extension.

Thanks Cheryl, your attention to this matter and Byron on-going participation is greatly appreciated.

Also, I will contact you in the next couple of weeks to see if we could provide you with an update on other initiatives my team is working on in collaboration with DFO (Centerm FAA, RBT2 FAA, visit of the New Brighton Park habitat enhancement project,...)

Regards,

Gilles Assier

Director, Infrastructure Sustainability



Vancouver Fraser Port Authority

100 The Pointe, 999 Canada Place
Vancouver, B.C. Canada V6C 3T4

P: 604-665-9078 | CELL: 778-231-4394
portvancouver.com

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**Pages 454 to / à 455
are duplicates of
sont des duplicatas des
pages 271 to / à 272**

Pringle, Sarah

From: Webb, Cheryl
Sent: June-20-18 4:03 PM
To: Magnan, Alain
Subject: FW: VFPA's Agreement for Habitat Banking - Extension
Attachments: VFPA Habitat Banking Agreement.pdf

FYI

From: Assier, Gilles [mailto:Gilles.Assier@portvancouver.com]
Sent: Tuesday, June 19, 2018 4:48 PM
To: Webb, Cheryl <Cheryl.Webb@dfo-mpo.gc.ca>
Cc: Nutton, Byron <Byron.Nutton@dfo-mpo.gc.ca>; Olson, Charlotte <Charlotte.Olson@portvancouver.com>; Ruffo, Gord <Gord.Ruffo@portvancouver.com>
Subject: VFPA's Agreement for Habitat Banking - Extension

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Regards,

Gilles Assier
Director, Infrastructure Sustainability



Vancouver Fraser Port Authority
100 The Pointe, 999 Canada Place
Vancouver, B.C. Canada V6C 3T4

P: 604-665-9078 | CELL: 778-231-4394
portvancouver.com

From: [Nutton, Byron](#)
To: [Coopper, Tola](#)
Cc: [Magnan, Alain](#)
Subject: FW: VFPA's Agreement for Habitat Banking - Extension
Date: 2018-June-21 2:44:00 PM
Attachments: [image001.png](#)
[RE Apr 23-26.msg](#)
[2018-05-14-VFPA-DFO Indigenous Engmt Plan-FINAL-clean-Rev1.pdf](#)

Hi Tola,

In Al's absence please find the following update for Cheryl.

- Work with VFPA on a new Arrangement is on-going – the most recent draft of the Arrangement incorporating a round of comments from myself and Suzanne has been with VFPA for several months – they have verbally indicated that they are generally not in opposition to the proposed amendments but are waiting for formal review at several levels before responding
- Over the past several months focus has shifted to developing a workplan for Indigenous engagement – at this time we anticipate it would be reasonable to complete engagement and hopefully be in a position to execute a new long-term arrangement by the end of calendar year
- In a recent DFO-VFPA-TWN meeting to discuss habitat banking, we discussed the likelihood of VFPA requesting another short-term extension to provide for a robust engagement plan – TWN representatives were supportive
- The request for an extension does not specify a term but based on adding a buffer to timeline identified in the workplan (December 2018) I would suggest March 31, 2019 being reasonable/appropriate
- Earlier today I sent an e-mail to the TWN representative confirming the request for extension and requesting any comments or concerns – I anticipate a positive reply and will follow-up when I receive any feedback

Attachments:

Previous e-mail update to Cheryl including the most recent draft of the new Arrangement referenced in the first bullet

Final engagement workplan showing anticipated schedule for completion

From: Magnan, Alain
Sent: 2018-June-20 8:56 AM
To: Nutton, Byron <Byron.Nutton@dfo-mpo.gc.ca>
Subject: RE: VFPA's Agreement for Habitat Banking - Extension

Sounds good. Cheryl is supportive of another short extension.

From: Nutton, Byron
Sent: June-20-18 8:07 AM
To: Magnan, Alain

Subject: Fw: VFPA's Agreement for Habitat Banking - Extension

Hey Al, as discussed, I'm working on getting you something on this - I'll be working at RHQ tomorrow then back at PBS Friday.

Sent from my BlackBerry 10 smartphone on the Rogers network.

From: Assier, Gilles <Gilles.Assier@portvancouver.com>
Sent: Tuesday, June 19, 2018 7:48 PM
To: Webb, Cheryl
Cc: Nutton, Byron; Olson, Charlotte; Ruffo, Gord
Subject: VFPA's Agreement for Habitat Banking - Extension

Hi Cheryl,

Hope you are doing well. My staff has been diligently working with Byron to secure both an additional extension to our existing Working Agreement with DFO for habitat banking as well as a new long-term Arrangement. The extension of our existing Working Agreement is required to accommodate a Fall consultation program with Indigenous groups on the new Arrangement as it currently expires on September 10th of this year. (I have attached a copy of the current extension for your reference). I understand that there is a mutual objective of having the new Arrangement in place by the end of this calendar year.

As our habitat bank is a significant commitment and investment, ensuring that a valid agreement with DFO is in place is essential. It would be very helpful, and appreciated, if we could secure the requested extension well ahead of the September 10 expiry date. Could you please provide me with the anticipated timeline for issuing this extension? Also, please let me know if you need any further information from VFPA regarding this extension.

Thanks Cheryl, your attention to this matter and Byron on-going participation is greatly appreciated.

Also, I will contact you in the next couple of weeks to see if we could provide you with an update on other initiatives my team is working on in collaboration with DFO (Centerm FAA, RBT2 FAA, visit of the New Brighton Park habitat enhancement project,...)

Regards,

Gilles Assier

Director, Infrastructure Sustainability



Vancouver Fraser Port Authority

100 The Pointe, 999 Canada Place
Vancouver, B.C. Canada V6C 3T4

P: 604-665-9078 | CELL: 778-231-4394
portvancouver.com

Boutillier, Jaclyn

From: Nutton, Byron
Sent: Tuesday, April 24, 2018 1:19 PM
To: Webb, Cheryl
Cc: Magnan, Alain
Subject: RE: Apr 23-26
Attachments: 2017-03-16_VFPA_Bank_DFO_edits.docx

Hi Cheryl,

In follow-up to our call, please see attached DRAFT Arrangement – this is the latest version, sent to VFPA March 16th for their consideration. It does NOT include the Consultation Annex which would outline how VFPA would engage and consult in the identification, consideration, development and construction of “conservation projects” – VFPA is re-working their initial draft based on our comments.

The other document being developed is the plan for engagement on the arrangement, to be completed before signing – again, VFPA is re-working their initial draft based on our comments.

I did reach out to [REDACTED] but have not heard back. If I do connect with him I will provide you with an update.

Lastly, one item I forgot to mention on our call is the possibility for further extension to the current agreement to allow for meaningful engagement – we have made significant progress on all fronts but it has taken time and there have been some delays on my end. Further, as you know we are already engaging Indigenous groups fairly heavily at this time. VFPA is reluctant to move away from the goal of having a new, long term agreement by this fall, but given all of this they are interested in understanding the possibility of a “back-up” plan.

Cheers,

Byron

From: Magnan, Alain
Sent: 2018–April-12 8:33 PM
To: Webb, Cheryl <Cheryl.Webb@dfo-mpo.gc.ca>
Cc: Nutton, Byron <Byron.Nutton@dfo-mpo.gc.ca>
Subject: Fw: Apr 23-26

s.19(1)

Hi Cheryl,

Byron has some updated lines on the port's habitat bank that we will try to send you tomorrow.

Al

Sent from my BlackBerry 10 smartphone on the Rogers network.

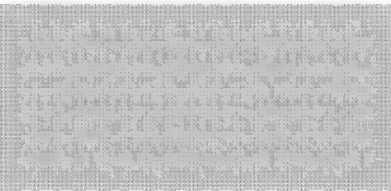
From: Webb, Cheryl <Cheryl.Webb@dfo-mpo.gc.ca>
Sent: Thursday, April 12, 2018 8:17 AM
To: Magnan, Alain
Subject: FW: Apr 23-26

Can we discuss and then maybe provide a written update to Nick...

s.19(1)

From [REDACTED]
Sent: Thursday, April 12, 2018 8:14 AM
To: Winfield, Nicholas <Nicholas.Winfield@dfo-mpo.gc.ca>
Cc: Webb, Cheryl <Cheryl.Webb@dfo-mpo.gc.ca>
Subject: Apr 23-26

Nick, I will be in Ottawa April 23 to 26, in part to support Chief Thomas in her testimony before the Standing Committee on Environment and Sustainable Development on April 24 on C-69. If you time to meet with me that week, I would like to talk about the Habitat Enhancement agreement with VFPA. Thanks, [REDACTED]



Treaty, Lands, and Resources Department
Tsleil-Waututh Nation
3075 Takaya Drive
North Vancouver, BC V7H 3A8
Canada

This electronic mail communication may contain privileged and confidential communications or work product. If you have received this communication in error or are not the intended recipient, please delete the communication without using, copying or otherwise disseminating it. Please notify the sender that you have received the message in error. Any modification of the contents of this e-mail is strictly prohibited unless expressly authorised by the sender. Thank you.

Pages 461 to / à 487

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Habitat Enhancement Program

Indigenous Engagement Work Plan for Vancouver Fraser Port Authority's and Fisheries and Oceans Canada's Habitat Bank Arrangement

Rev 1 - May 14, 2018

1. Overview and Purpose

Vancouver Fraser Port Authority (VFPA) currently operates a habitat bank that was created through a formal agreement with Fisheries and Oceans Canada (DFO). This agreement will expire in September 2018 and as such, a new habitat bank agreement between VFPA and DFO is required. It is VFPA's and DFO's intent to enter into a new Habitat Bank Arrangement.

DFO regional representatives require that Indigenous groups be informed of the following:

- the VFPA Habitat Enhancement Program
- the Indigenous engagement and consultation process for projects that fall under the VFPA Habitat Enhancement Program
- VFPA and DFO's intent to enter into a new Habitat Bank Arrangement

This document outlines VFPA and DFO's approach to meet the above-listed requirements. It also identifies the Indigenous groups within the Service Area that will be engaged, proposed engagement activities and reporting, and a schedule with key timing considerations. The proposed schedule for the implementation of this work plan is directly related to the current expiration date of September 2018 for the existing agreement with DFO for VFPA's habitat bank. It is noted that this work plan is not anticipated to be complete until December 2018 and as such, an extension to the existing agreement will be required.

2. Service Area

For the purposes of VFPA's new Habitat Bank Arrangement with DFO, the Service Area will be defined as VFPA's navigational jurisdiction as depicted in Figure 1 below. VFPA may wish to, however, negotiate the development of habitat projects outside of this defined Service Area, should an opportunity be identified.

VFPA and DFO recognize the history and contemporary interests of Indigenous peoples and work to establish and maintain productive relationships through Indigenous engagement, regular communication and to ensure that the protection of fish and fish habitat is considered in the development of the Asia-Pacific Gateway.

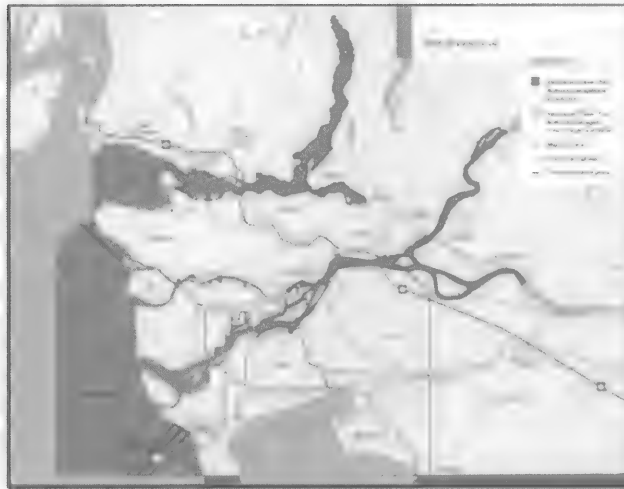


Figure 1

Vancouver Fraser Port Authority operates within the asserted traditional territories of 37 Coast Salish Indigenous groups and in proximity to the treaty settlement lands of the Tsawwassen First Nation.

The following Indigenous groups' asserted traditional territories or treaty lands intersect with the lands and waters managed by VFPA:

Musqueam Indian Band
Squamish Nation
Tsleil-Waututh Nation
Kwikwetlem First Nation
Katzie First Nation
Semiahmoo First Nation
Qayqayt First Nation
Hwlitsum

Sto:lo Nation

- Aitchelitz First Nation
- Leq'a:mel First Nation
- Matsqui First Nation
- Popkum First Nation
- Shxwha:y Village First Nation
- Skawahlook First Nation

Sto:lo Tribal Council

- Chawathil First Nation
- Cheam First Nation
- Kwantlen First Nation
- Kwaw-kwaw-Apilt First Nation
- Scowlitz First Nation
- Seabird Island First Nation
- Shxw'ow'hamel First Nation
- Skowkale First Nation
- Soowahlie First Nation
- Squiala First Nation
- Sumas First Nation
- Tzeachten First Nation
- Yakweakwioose First Nation

Hul'qumi'num Treaty Group

- Cowichan Tribes
- Halalt First Nation
- Lake Cowichan First Nation
- Lyackson First Nation
- Penelakut First Nation
- Stz'uminus First Nation

Saanich First Nations

- Pauquachin First Nation
- Tsawout First Nation
- Tsartlip First Nation
- Tseycum First Nation

Treaty Lands

- Tsawwassen First Nation

3. Engagement Process

In order to meet the requirements outlined in **Section 1** above, the following Indigenous engagement activities will be undertaken:

a) Sharing of Information Packages

Information packages will be shared with the Indigenous groups identified in **Section 2**.

These packages will include:

- A description of how habitat banks are used to offset serious harm to fisheries
- A description of how habitat credits are deposited into the habitat bank
- A description of how habitat credits may be withdrawn from the habitat bank and the DFO-led Indigenous consultation process associated with this withdrawal
- An overview of VFPA's *Aboriginal Consultation and Engagement Process* for proposed habitat banking projects. This process demonstrates how VFPA intends to engage and consult with Indigenous groups within the identified service area and identifies how Indigenous input and knowledge will be considered throughout the project identification, development, construction and post-construction phases. Opportunities for Indigenous participation (e.g. technical design review, fieldwork, monitoring, contracting, employment and training) will also be identified as well as the process for reporting back to Indigenous groups on feedback received.
- Other relevant materials (e.g. Habitat Enhancement Program presentations, project overview/information sheets, map of Habitat Enhancement Program projects, etc.).

VFPA will undertake follow up communications to confirm receipt of this information by Indigenous groups. VFPA will respond to any questions, comments and feedback from Indigenous groups received in advanced of focused information sessions (see below).

b) Information Sessions

Two information sessions (Lower Mainland and Vancouver Island) will be scheduled and invitations will be sent to the identified Indigenous groups. A proposed agenda will be provided in advance of the sessions. Key components of these information sessions will be as follows:

- Presentation of material included in the Information Packages
- Attendance and support from DFO regional staff
- Questions/feedback from Indigenous groups

Upon completion of the Information Sessions, a one-month response period will be provided to Indigenous groups to provide feedback. It is anticipated that additional information will

be requested by Indigenous groups during this period. VFPA will respond to comments and questions from Indigenous groups and may require the support of DFO for these responses. Due to the time constraints identified within this work plan, timely responses from DFO and VFPA to questions, must be achieved.

c) Meetings and Other Engagement Activities

One-on-one meetings or other types of engagement activities (e.g. presentations to elders and/or leadership, community meetings) will be undertaken if preferred and as requested by Indigenous groups. VFPA has consulted Indigenous groups on projects within the Habitat Enhancement Program since the program's inception and has established ways of working with Indigenous groups. VFPA anticipates that several groups will request one-on-one meetings in lieu of, or in addition to, attendance at information sessions.

d) Comment Period

A formal comment period will be established by VFPA and DFO to provide Indigenous groups a reasonable amount of time to provide feedback on VFPA and DFO's process for Indigenous engagement. The goal of this Comment Period is to allow Indigenous groups an opportunity to provide feedback.

e) VFPA/DFO Follow-up

All feedback received will be considered with responses issued to the Indigenous group. Where appropriate, refinements will be made to VFPA and DFO's process for Indigenous engagement to incorporate this feedback.

f) Reporting

At the conclusion of the engagement period, VFPA will prepare a document titled "*Summary of Indigenous Engagement on VFPA and DFO's Habitat Bank Arrangement*", which will include a description of engagement activities, attendance records for the Information Sessions, list of supplemental information issued to address Indigenous group questions, and a compilation of feedback received. This document will be shared with both DFO and the participating Indigenous groups.

g) Schedule and Time Constraints

The schedule for the implementation of this engagement process is critical to the ongoing development of VFPA's habitat bank. A key time consideration is the expiration of VFPA's existing Working Agreement for Habitat Banking (September 10, 2018).

The following schedule is planned:

Task 1	VFPA to submit final Indigenous engagement work plan (which includes DFO edits) for Habitat Bank Arrangement to DFO	May 14, 2018
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Task 2	DFO to provide written approval that the engagement process (work plan) meets DFO requirements	May 16, 2018
Task 3	Preparation and DFO review of Information Packages	May 17 - July 31, 2018
Task 4	Distribution of Information Packages to Indigenous groups	Aug 1, 2018
Task 5	Information Session No. 1 (Lower Mainland)	Sept 19, 2018
Task 6	Individual engagement sessions (Lower Mainland)	Sept 24-28, 2018
Task 7	Information Session No. 2 (Vancouver Island)	Oct 3, 2018
Task 8	Individual engagement sessions (Vancouver Island)	Oct 8-12, 2018
Task 9	Information Session Comment Period	Oct. 4 to Oct. 24, 2018
Task 10	VFPA follow up with Indigenous groups	Oct 25 – Nov 8, 2018
Task 11	Preparation of <i>Summary of Indigenous Engagement on VFPA and DFO's Habitat Bank Arrangement</i>	Nov 9 – Nov 30, 2018
Task 12	Execution of VFPA and DFO's Habitat Bank Arrangement	Dec 14, 2018

Thorpe, Suzanne

From: Olson, Charlotte <Charlotte.Olson@portvancouver.com>
Sent: Thursday, June 21, 2018 3:02 PM
To: Nutton, Byron
Cc: Thorpe, Suzanne
Subject: RE: CONFIRMED MEETING: VFPA Habitat Bank Agreement Meeting (June 26) - pls respond

Perfect, thank you for confirming Byron. See you on Tuesday.

From: Nutton, Byron [mailto:Byron.Nutton@dfo-mpo.gc.ca]
Sent: Thursday, June 21, 2018 1:07 PM
To: Olson, Charlotte <Charlotte.Olson@portvancouver.com>
Cc: Thorpe, Suzanne <Suzanne.Thorpe@dfo-mpo.gc.ca>
Subject: RE: CONFIRMED MEETING: VFPA Habitat Bank Agreement Meeting (June 26) - pls respond

It turns out I will be over for the day so we will attend in person.

From: Olson, Charlotte [mailto:Charlotte.Olson@portvancouver.com]
Sent: 2018-June-21 12:20 PM
To: Nutton, Byron <Byron.Nutton@dfo-mpo.gc.ca>; Thorpe, Suzanne <Suzanne.Thorpe@dfo-mpo.gc.ca>
Subject: RE: CONFIRMED MEETING: VFPA Habitat Bank Agreement Meeting (June 26) - pls respond

Hi Byron and Suzanne – can you please confirm if you are attending in person at VFPA, or by conference call for this meeting next week at 10am on June 26?

Thank you

Charlotte Olson P.Geo., PMP
Manager, Infrastructure Habitat Development

CELL: 604.349.4111

-----Original Appointment-----

From: Olson, Charlotte
To: Olson, Charlotte; Nutton, Byron; Ruffo, Gord; Scoble, Jemma; Thorpe, Suzanne
Subject: CONFIRMED MEETING: VFPA Habitat Bank Agreement Meeting (June 26)
When: Tuesday, June 26, 2018 10:00 AM-11:00 AM (UTC-08:00) Pacific Time (US & Canada).
Where: VFPA office – Fraser Room (10) – 100 The Pointe, 999 Canada Place

CONFIRMED

Meeting Agenda

1. Status of VFPA-DFO Habitat Bank Arrangement
2. Preparation of materials for Indigenous engagement – information packages

Conference Call Number:

604-216-6040

ID 

PS – Byron- if you are in Vancouver, we can meet in person – otherwise it will be a conference call

s.16(2)(c)

No further information has been removed or severed from this page

Thorpe, Suzanne

From: Olson, Charlotte <Charlotte.Olson@portvancouver.com>
Sent: Monday, June 25, 2018 6:19 PM
To: Richardson, Tessa
Cc: Smith, Shona; Engelsjord, Michael; [REDACTED]; Ruffo, Gord; Assier, Gilles; Nutton, Byron; Thorpe, Suzanne
Subject: Re: CEP FAA Meeting - VFPA and DFO - Agenda June 26

Thanks Tessa,
No problem, we can fit that in tomorrow.

Regards,
Charlotte

Mobile
604-349-4111

On Jun 25, 2018, at 5:10 PM, Richardson, Tessa <Tessa.Richardson@dfo-mpo.gc.ca<mailto:Tessa.Richardson@dfo-mpo.gc.ca>> wrote:

Hi Charlotte,

DFO is also interested in an update on VFPA's consultation with Indigenous groups if possible. We are happy to discuss this at a later time if it doesn't fit into tomorrow's agenda.

Tessa Richardson

Fisheries Protection Biologist, Fisheries Protection Program Fisheries and Oceans Canada/Government of Canada
Tessa.Richardson@dfo-mpo.gc.ca<mailto:Tessa.Richardson@dfo-mpo.gc.ca> / 604-362-4645

From: Olson, Charlotte [mailto:Charlotte.Olson@portvancouver.com]
Sent: 2018-June-25 12:56 PM
To: Richardson, Tessa; Smith, Shona; Engelsjord, Michael; [REDACTED] Ruffo, Gord
Cc: Assier, Gilles; Nutton, Byron; Thorpe, Suzanne
Subject: RE: CEP FAA Meeting - VFPA and DFO - Agenda June 26

Hi Tessa
Sure, Byron and Suzanne can stay for the CEP FAA meeting – attached is the Agenda for the CEP FAA meeting, set for 11am start.

We are already meeting with Byron and Suzanne earlier, from 10-11, with a focus on our VFPA habitat bank, so we will be in the same meeting room just beforehand.

See you all tomorrow.

Charlotte Olson P.Geo., PMP
Manager, Infrastructure Habitat Development

s.19(1)

CELL: 604.349.4111

From: Richardson, Tessa [mailto:Tessa.Richardson@dfo-mpo.gc.ca]
Sent: Monday, June 25, 2018 12:22 PM
To: Olson, Charlotte <Charlotte.Olson@portvancouver.com<mailto:Charlotte.Olson@portvancouver.com>>; Smith, Shona <Shona.Smith@dfo-mpo.gc.ca<mailto:Shona.Smith@dfo-mpo.gc.ca>>; Engelsjord, Michael <Michael.Engelsjord@dfo-mpo.gc.ca<mailto:Michael.Engelsjord@dfo-mpo.gc.ca>>; [REDACTED]
[REDACTED] Ruffo, Gord
<Gord.Ruffo@portvancouver.com<mailto:Gord.Ruffo@portvancouver.com>>
Cc: Assier, Gilles <Gilles.Assier@portvancouver.com<mailto:Gilles.Assier@portvancouver.com>>; Nutton, Byron <Byron.Nutton@dfo-mpo.gc.ca<mailto:Byron.Nutton@dfo-mpo.gc.ca>>; Thorpe, Suzanne <Suzanne.Thorpe@dfo-mpo.gc.ca<mailto:Suzanne.Thorpe@dfo-mpo.gc.ca>>
Subject: RE: CEP FAA Meeting - VFPA and DFO - Agenda June 26

Hi Charlotte,

Given the proposed habitat banking associated with the offsetting plan for Centerm, we propose to include Byron and Suzanne for the first portion (~30 mins?) of the meeting.

Also, Shona is no longer able to attend.

All the best,

Tessa Richardson

Fisheries Protection Biologist, Fisheries Protection Program Fisheries and Oceans Canada/Government of Canada
Tessa.Richardson@dfo-mpo.gc.ca<mailto:Tessa.Richardson@dfo-mpo.gc.ca> / 604-362-4645

From: Olson, Charlotte [mailto:Charlotte.Olson@portvancouver.com]
Sent: 2018-June-21 10:29 AM
To: Smith, Shona; Engelsjord, Michael; Richardson, Tessa; [REDACTED] Ruffo, Gord
Cc: Assier, Gilles
Subject: RE: CEP FAA Meeting - VFPA and DFO - Agenda June 26

All, please find attached the proposed Agenda to guide our meeting next Tuesday, June 26 at VFPA (11am start) – looking forward to meeting with you all then, please ask for me at Reception.
We can adjust the Agenda to suit any additional input from DFO at the meeting.

Note that lunch will be provided at the meeting.

Kind Regards,

Charlotte Olson P.Geo., PMP
Manager, Infrastructure Habitat Development

CELL: 604.349.4111

-----Original Appointment-----

From: Olson, Charlotte
Sent: Wednesday, June 06, 2018 1:14 PM
To: Olson, Charlotte; Smith, Shona; Engelsjord, Michael; Richardson, Tessa; [REDACTED] Ruffo, Gord
Cc: Assier, Gilles

Subject: CEP FAA Meeting - VFPA and DFO

When: Tuesday, June 26, 2018 11:00 AM-12:30 PM (UTC-08:00) Pacific Time (US & Canada).

Where: VFPA office – Fraser Room (10) – 100 The Pointe, 999 Canada Place

Please accept this invite to confirm your attendance – Centerm Expansion Project Fisheries Act Authorization (CEP FAA) Meeting at VFPA Tuesday June 26 (11:00-12:30pm)

Location: VFPA Office, 999 Canada Place – Fraser Meeting Room

Meeting Objectives:

1. VFPA FAA team to present to DFO the proposed VFPA response approach to the DFO April 3/18 letter 'review-phase' items (pg 2 of DFO letter)
2. Discussion

We will provide a short Agenda (matching the meeting objectives) in advance of the meeting.
Thank you for your availability to meet with us.

If required, here is a Conference Line:

604-216-6040

ID [REDACTED]

Regards,
Charlotte

Charlotte Olson P.Geo., PMP
Manager, Infrastructure Habitat Development
P: 604.665.9590 | CELL: 604.349.4111

s.16(2)(c)

Thorpe, Suzanne

From: Olson, Charlotte <Charlotte.Olson@portvancouver.com>
Sent: Monday, June 25, 2018 12:56 PM
To: Richardson, Tessa; Smith, Shona; Engelsjord, Michael; [REDACTED] Ruffo, Gord
Cc: Assier, Gilles; Nutton, Byron; Thorpe, Suzanne
Subject: RE: CEP FAA Meeting - VFPA and DFO - Agenda June 26
Attachments: 2018-06-26-03-600-CEP-VFPA-AGENDA-CEP FAA DFO Meeting June 26-Rev0.pdf

Hi Tessa

Sure, Byron and Suzanne can stay for the CEP FAA meeting – attached is the Agenda for the CEP FAA meeting, set for 11am start.

We are already meeting with Byron and Suzanne earlier, from 10-11, with a focus on our VFPA habitat bank, so we will be in the same meeting room just beforehand.

See you all tomorrow.

Charlotte Olson P.Geo., PMP
Manager, Infrastructure Habitat Development

CELL: 604.349.4111

From: Richardson, Tessa [mailto:Tessa.Richardson@dfo-mpo.gc.ca]
Sent: Monday, June 25, 2018 12:22 PM
To: Olson, Charlotte <Charlotte.Olson@portvancouver.com>; Smith, Shona <Shona.Smith@dfo-mpo.gc.ca>; Engelsjord, Michael <Michael.Engelsjord@dfo-mpo.gc.ca>; [REDACTED]; Ruffo, Gord <Gord.Ruffo@portvancouver.com>
Cc: Assier, Gilles <Gilles.Assier@portvancouver.com>; Nutton, Byron <Byron.Nutton@dfo-mpo.gc.ca>; Thorpe, Suzanne <Suzanne.Thorpe@dfo-mpo.gc.ca>
Subject: RE: CEP FAA Meeting - VFPA and DFO - Agenda June 26

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Also, Shona is no longer able to attend.

All the best,

Tessa Richardson

s.19(1)

Fisheries Protection Biologist, Fisheries Protection Program
Fisheries and Oceans Canada/Government of Canada
Tessa.Richardson@dfo-mpo.gc.ca / 604-362-4645

From: Olson, Charlotte [mailto:Charlotte.Olson@portvancouver.com]
Sent: 2018-June-21 10:29 AM
To: Smith, Shona; Engelsjord, Michael; Richardson, Tessa; [REDACTED] Ruffo, Gord

Cc: Assier, Gilles

Subject: RE: CEP FAA Meeting - VFPA and DFO - Agenda June 26

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We can adjust the Agenda to suit any additional input from DFO at the meeting.

Note that lunch will be provided at the meeting.

Kind Regards,

Charlotte Olson P.Geo., PMP
Manager, Infrastructure Habitat Development

CELL: 604.349.4111

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Sent: Wednesday, June 06, 2018 1:14 PM

To: Olson, Charlotte; Smith, Shona; Engelsjord, Michael; Richardson, Tessa; [REDACTED]; Ruffo, Gord

Cc: Assier, Gilles

Subject: CEP FAA Meeting - VFPA and DFO

When: Tuesday, June 26, 2018 11:00 AM-12:30 PM (UTC-08:00) Pacific Time (US & Canada).

Where: VFPA office – Fraser Room (10) – 100 The Pointe, 999 Canada Place

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Location: VFPA Office, 999 Canada Place – Fraser Meeting Room

Meeting Objectives:

1. VFPA FAA team to present to DFO the proposed VFPA response approach to the DFO April 3/18 letter 'review-phase' items (pg 2 of DFO letter)
2. Discussion

We will provide a short Agenda (matching the meeting objectives) in advance of the meeting.
Thank you for your availability to meet with us.

If required, here is a Conference Line:

604-216-6040

ID [REDACTED]

s.16(2)(c)

s.19(1)

Regards,
Charlotte

Charlotte Olson P.Geo., PMP
Manager, Infrastructure Habitat Development
P: 604.665.9590 | CELL: 604.349.4111



Meeting Agenda

Centerm Expansion Project (CEP) Fisheries Act Authorization (FAA)

DFO / VFPA Meeting: CEP FAA

Location: VFPA Office (Fraser Meeting Room)

Date: Tuesday, June 26, 2018 (11:00am – 12:30pm*)

**Lunch will be provided at the meeting*

Attendees:

Michael Engelsjord (DFO)
Tessa Richardson (DFO)
Shona Smith (DFO)

Gilles Assier (VFPA) - optional
Charlotte Olson (VFPA)
Gord Ruffo (VFPA)

AGENDA:

- 1) Introductions
- 2) VFPA Response Approach to DFO-identified April 3/18 'review-phase' items:
 - a) Time lag
 - b) CEP offsetting construction (technically feasible & self-sustaining)
 - c) Existing habitat values
- 3) Discussion
- 4) Timeline and Next Steps

s.19(1)

Melnick, Lorienta

Subject: FW: CONFIRMED MEETING: VFPA Habitat Bank Agreement Meeting (June 16)
Location: VFPA office – Fraser Room (10) – 100 The Pointe, 999 Canada Place

Start: Tue 6/26/2018 10:00 AM
End: Tue 6/26/2018 11:00 AM
Show Time As: Tentative

Recurrence: (none)

Meeting Status: Not yet responded

Organizer: Olson, Charlotte

Hey Lorienta, as discussed, if you are able to call-in that would be great. Cheers, Byron

-----Original Appointment-----

From: Olson, Charlotte [mailto:Charlotte.Olson@portvancouver.com]
Sent: 2018-June-06 9:36 AM
To: Olson, Charlotte; Nutton, Byron; Ruffo, Gord; Scoble, Jemma; Thorpe, Suzanne
Subject: CONFIRMED MEETING: VFPA Habitat Bank Agreement Meeting (June 16)
When: 2018-June-26 10:00 AM-11:00 AM (UTC-08:00) Pacific Time (US & Canada).
Where: VFPA office – Fraser Room (10) – 100 The Pointe, 999 Canada Place

CONFIRMED

Meeting Agenda

1. Status of VFPA-DFO Habitat Bank Arrangement
2. Preparation of materials for Indigenous engagement – information packages

Conference Call Number:

604-216-6040

ID [REDACTED]

PS – Byron- if you are in Vancouver, we can meet in person – otherwise it will be a conference call

s.16(2)(c)

CONFIRMED MEETING VFPA Habitat Bank Agreement Meeting (June 26).txt

Subject: CONFIRMED MEETING: VFPA Habitat Bank Agreement Meeting (June 26)

Location: VFPA office – Fraser Room (10) – 100 The Pointe, 999 Canada Place

Start: Tue 6/26/2018 10:00 AM

End: Tue 6/26/2018 11:00 AM

Recurrence: (none)

Meeting Status: Accepted

Organizer: Olson, Charlotte

Categories: Important

CONFIRMED

Meeting Agenda

1. Status of VFPA-DFO Habitat Bank Arrangement
2. Preparation of materials for Indigenous engagement – information packages

Conference Call Number:

604-216-6040

ID 

PS – Byron- if you are in Vancouver, we can meet in person – otherwise it will be a conference call

s.16(2)(c)

From: Nutton, Byron
To: [REDACTED]
Subject: RE: VFPA Banking Arrangement
Date: 2018-June-27 10:16:00 AM

Sure. Does 3:30 work for you?

From: [REDACTED] s.19(1)
Sent: 2018-June-27 10:01 AM
To: Nutton, Byron <Byron.Nutton@dfo-mpo.gc.ca>
Subject: RE: VFPA Banking Arrangement

Tomorrow afternoon? [REDACTED]

From: Nutton, Byron [mailto:Byron.Nutton@dfo-mpo.gc.ca]
Sent: Wednesday, June 27, 2018 10:00 AM
To: [REDACTED]
Subject: RE: VFPA Banking Arrangement

Hi [REDACTED] Thanks for the reply. Are you available for a brief chat about this and another bank-related topic? Nothing formal, just a bit of follow-up from our last discussion.

From: [REDACTED]
Sent: 2018-June-27 9:57 AM
To: Nutton, Byron <Byron.Nutton@dfo-mpo.gc.ca>
Subject: RE: VFPA Banking Arrangement

Byron, delaying until December is okay with TWN. [REDACTED]

From: Nutton, Byron [mailto:Byron.Nutton@dfo-mpo.gc.ca]
Sent: Thursday, June 21, 2018 2:22 PM
To: [REDACTED]
Subject: VFPA Banking Arrangement

Hi [REDACTED]

As we discussed recently, VFPA has requested an additional extension to their existing Habitat Banking Agreement with DFO.

As you will recall, the original Agreement was set to expire in September 2017 and was extended for an additional year in June 2017 to allow time for the development a new Arrangement. Although DFO and VFPA have made some progress in the last year, the current expiry of September 2018 is fast approaching, and we are just now in a position to begin engagement with TWN and other potentially affect Indigenous groups.

To this end, DFO and VFPA have discussed the steps and schedule for engagement and have concluded that it would be very optimistic to presume we would be able to successfully deliver a

robust engagement strategy prior to the current expiry date - we anticipate the end of calendar year being much more realistic. In their request, VFPA has not proposed a term for the extension but to ensure we allow for meaningful engagement opportunities I am considering the end of March being appropriate.

Given our history of engagement to date on this file, I wanted to be sure that TWN is aware of our consideration of this request and provide you with an opportunity to provide your comments or concerns prior to my making a recommendation to my Regional Director regarding this request.

I look forward to hearing from you.

Regards,

Byron Nutton, RPBio

A/Team Lead | Chef d'équipe Intérimaire
Partnerships, Standards and Guidelines | Partenariats, Normes et lignes
directrices
Fisheries Protection Program | Programme de protection des pêches
Fisheries and Oceans Canada | Pêches et Océans Canada
Pacific Region | Région du Pacifique

250-618-4268

Nutton, Byron

Subject: VFPA Banking
Location: Byron to call [REDACTED]
Start: Thu 2018-06-28 3:30 PM
End: Thu 2018-06-28 4:30 PM
Show Time As: Tentative
Recurrence: (none)
Meeting Status: Not yet responded
Organizer: Nutton, Byron

Thanks [REDACTED] I will call you tomorrow at 3:30 [REDACTED] unless you have a different number you would prefer.

It is likely we can cover the topics I'd like to discuss in ½ hour but suggesting an hour in case there are other items that come up.

1. VFPA request for extension
2. Maplewood flats – initial thoughts on potential banking of habitat credits in excess of Centerm offsetting requirements.

s.19(1)

From: Nutton, Byron
To: Magnan, Alain
Subject: RE: Update: Extension of VFPA's Agreement for Habitat Banking
Date: 2018-June-29 9:16:00 AM
Attachments: VFPA Habitat Banking Agreement.pdf
image001.png
2018-05-14-VFPA-DFO Indigenous Engmt Plan-FINAL-clean-Rev1.pdf
RE VFPA Banking Arrangement.msg
Importance: High

Hey Al,

To recap:

- The extension granted last year expires on September 10th
- VFPA has asked for another extension but not specified a term, however they have clearly expressed to me their preference to have a renewed agreement in place by the end of December
- DFO and VFPA have jointly developed a work plan that sees Indigenous engagement completed by the end of November with consideration of any input and a decision on a new agreement before the end of December (see attached PDF "2018...")
- Given my experience and considering other initiatives that are underway (including Indigenous engagement on RBT2 and FA Review), I am much more comfortable recommending an extension to the end of March 2019

New information:

- I discussed the proposed extension with [REDACTED] TWN. They have a preference to see this process completed by the end of December in order to better align with other initiatives, but he was not opposed to a March timeframe based on my assurance we would proceed with a work plan that sees this process completed by the end of December, with any time beyond that being used to respond to somewhat exigent circumstances rather than simply more time (see attached e-mail)
- My read of things is that we continue to have a very good working relationship with TWN on this file and that going with March vs December will not change that
- I am still of the opinion that it would be best to proceed with an extension to March 31, 2019 - right now we are only engaged with TWN because they came to us, so this extension (as with the last) is fairly simple, but once we start engaging the broader Indigenous community any additional extension may not be so easy to consider.

Next steps:

- I have confirmed that Robin Silvester is still President and CEO and the appropriate addressee (see his particulars in the attached extension letter from last year, PDF "VFPA...") and given that the request came from Gilles Assier (see e-mail trail below) it would probably be appropriate to cc Gilles on the response.
- Based on the situation as summarized above, please see my cut at draft text for a response letter from Cheryl to VFPA.

As you are aware, Fisheries and Oceans Canada (DFO) and the Vancouver Fraser Port Authority (VFPA) entered into a Working Agreement concerning Procedures for the

Development and Operation of the Port Metro Vancouver Habitat Bank, dated July 31, 2012 and signed and executed on September 10, 2012. The conditions of this Working Agreement specified a 5-year term expiring on September 10, 2017; however on June 30, 2017 DFO granted a one-year extension to allow DFO and VFPA to continue discussions regarding the establishment of a renewed long-term agreement.

It is my understanding that over the course of the last year DFO and VFPA staff working on this file have made substantial progress on proposed terms and conditions for a renewed agreement, and have developed a work plan to engage potentially affected Indigenous groups and receive their input to inform our development and consideration of such an agreement. It is my further understanding that the timeline proposed in this work plan anticipates that engagement will be completed by the end of November 2018 with consideration of any input and a decision on a new agreement before the end of December, both of which are beyond the current expiration date of the existing agreement.

I am in receipt of an e-mail dated June 19, 2018 from Gilles Assier, VFPA's Director of Infrastructure Sustainability, requesting a further extension to the existing agreement to allow for this Indigenous engagement work plan to be implemented within the proposed timeline. I understand that VFPA is interested in completing this process as soon as practical and assure you that I am supportive of DFO and VFPA staff working toward the timelines identified above. However, in the interest implementing a robust Indigenous engagement process that can be responsive to circumstances that may arise and allowing for ample consideration of any input received, I feel that it would be appropriate to provide additional time.

In this regard, please consider this letter as confirmation of an extension of the existing Working Agreement concerning Procedures for the Development and Operation of the Port Metro Vancouver Habitat Bank, to a new expiry date of March 31, 2019.

- VFPA is very anxious (as usual) to secure this extension, but more importantly if we are to issue and extension it really should be done before we reach out to engage on the longer-term renewal, so sooner is better

Cheers,

Byron

From: Cooper, Tola

Sent: 2018-June-22 1:39 PM

To: Webb, Cheryl <Cheryl.Webb@dfo-mpo.gc.ca>

Cc: Magnan, Alain <Alain.Magnan@dfo-mpo.gc.ca>; Nutton, Byron <Byron.Nutton@dfo-mpo.gc.ca>

Subject: Update: Extension of VFPA's Agreement for Habitat Banking

Hi Cheryl,

Byron and I wanted to make sure you had an update on the VFPA's Agreement for Habitat Banking

and the possible extension.

- Work with VFPA on a new Arrangement is on-going
 - The most recent draft of the Arrangement has been with VFPA for several months. They have verbally indicated that they are generally not in opposition to the proposed amendments, but are waiting for formal review at several levels before responding.
- Over the past several months focus has shifted to developing a workplan for Indigenous engagement. At this time we anticipate it is reasonable to complete engagement and hopefully be in a position to execute a new long-term arrangement by the end of the calendar year.
- In a recent DFO-VFPA-TWN meeting to discuss habitat banking, we discussed the likelihood of VFPA requesting another short-term extension to provide for a robust engagement plan; TWN representatives were supportive.
- The request for an extension does not specify a term, but based on adding a buffer to the timeline identified in the workplan (December 2018), we would suggest March 31, 2019 being reasonable / appropriate
- Earlier today Byron sent an e-mail to the TWN representative confirming the request for extension and requesting any comments or concerns. We anticipate a positive reply and will follow-up when we receive any feedback.

Attachments:

- Previous e-mail update including the most recent draft of the new Arrangement referenced in the first bullet
- Final engagement workplan showing anticipated schedule for completion

If you need anything else don't hesitate to ask and we will keep you posted as things proceed.

Talk soon,
Tola.

250-618-9038

From: Assier, Gilles <Gilles.Assier@portvancouver.com>
Sent: Tuesday, June 19, 2018 7:48 PM
To: Webb, Cheryl
Cc: Nutton, Byron; Olson, Charlotte; Ruffo, Gord
Subject: VFPA's Agreement for Habitat Banking - Extension

Hi Cheryl,

[REDACTED] My staff has been diligently working with Byron to secure both an additional extension to our existing Working Agreement with DFO for habitat banking as well as a new long-term Arrangement. The extension of our existing Working Agreement is required to accommodate a Fall consultation program with Indigenous groups on the new Arrangement as it currently expires on September 10th of this year. (I have attached a copy of the current extension for your reference). I understand that there is a mutual objective of having the new Arrangement in place by the end of this calendar year.

As our habitat bank is a significant commitment and investment, ensuring that a valid agreement with DFO is in place is essential. It would be very helpful, and appreciated, if we could secure the requested extension well ahead of the September 10 expiry date. Could you please provide me with the anticipated timeline for issuing this extension? Also, please let me know if you need any further information from VFPA regarding this extension.

Thanks Cheryl, your attention to this matter and Byron on-going participation is greatly appreciated.

Also, I will contact you in the next couple of weeks to see if we could provide you with an update on other initiatives my team is working on in collaboration with DFO (Centerm FAA, RBT2 FAA, visit of the New Brighton Park habitat enhancement project,..)

Regards,

Gilles Assier

Director, Infrastructure Sustainability



Vancouver Fraser Port Authority

100 The Pointe, 999 Canada Place
Vancouver, B.C. Canada V6C 3T4

P: 604-665-9078 | CELL: 778-231-4394
portvancouver.com

**Pages 511 to / à 512
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pages 271 to / à 272**

**Pages 513 to / à 518
are duplicates of
sont des duplicatas de la
page 488**

Boutillier, Jaclyn

From: [REDACTED]
Sent: Friday, June 29, 2018 7:00 AM
To: Nutton, Byron
Cc: [REDACTED]
Subject: RE: VFPA Banking Arrangement

Byron, you have captured our discussion yesterday accurately. Thanks for your consideration. [REDACTED]



Treaty, Lands, and Resources Department
Tsleil-Waututh Nation
3075 Takaya Drive
North Vancouver, BC V7H 3A8
Canada

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From: Nutton, Byron [mailto:Byron.Nutton@dfo-mpo.gc.ca]
Sent: Thursday, June 28, 2018 4:28 PM
To: [REDACTED]
Subject: RE: VFPA Banking Arrangement

[REDACTED]

Thank you for your reply, and thank you for the follow-up phone discussion just now.

As discussed, I understand your strong preference to have this process completed by the end of December in order to better align with other initiatives. VFPA has also clearly expressed their preference to have a renewed agreement in place as soon as practical and have suggested the end of December, and DFO would like to see this completed in that time frame as well. As indicated below, this timeframe is supported by an Indigenous engagement work plan that that DFO and VFPA have been developing over the last several months - the end of November being seen as a realistic timeframe for completing engagement, followed by consideration of any input and a decision on a renewed agreement by the end of December.

However, based on my experience and considering other initiatives that are underway (including Indigenous engagement on both the Roberts Bank Terminal 2 project and the review of the *Fisheries Act*), I am concerned that limiting an extension to the end of December may hamper our ability to address circumstances that may arise. In this regard I am much more comfortable recommending an extension to the end of March 2019.

Based on our discussion I understand that you are not opposed to a March timeframe, provided it is couched in language that relays both your strong preference for December and DFO's intention to proceed with a work plan that sees this process completed by the end of December, with any time beyond that being used to respond to somewhat exigent circumstances rather than simply more time.

Please let me know if I have captured any part of our discussion inaccurately, otherwise I will proceed with recommending an extension to March 31, 2019 as identified above.

Thanks again for your time and consideration.

Regards,

Byron Nutton, RPBio

A/Team Lead | Chef d'équipe Intérimaire
Partnerships, Standards and Guidelines | Partenariats, Normes et lignes directrices
Fisheries Protection Program | Programme de protection des pêches
Fisheries and Oceans Canada | Pêches et Océans Canada
Pacific Region | Région du Pacifique

250-618-4268

From: John Konovsky [mailto:jkonovsky@twnation.ca]
Sent: 2018-June-27 9:57 AM
To: Nutton, Byron <Byron.Nutton@dfo-mpo.gc.ca>
Subject: RE: VFPA Banking Arrangement

Byron, delaying until December is okay with TWN. John

From: Nutton, Byron [mailto:Byron.Nutton@dfo-mpo.gc.ca]
Sent: Thursday, June 21, 2018 2:22 PM
To: [REDACTED]
Subject: VFPA Banking Arrangement

[REDACTED]

As we discussed recently, VFPA has requested an additional extension to their existing Habitat Banking Agreement with DFO.

As you will recall, the original Agreement was set to expire in September 2017 and was extended for an additional year in June 2017 to allow time for the development a new Arrangement. Although DFO and VFPA have made some progress in the last year, the current expiry of September 2018 is fast approaching, and we are just now in a position to begin engagement with TWN and other potentially affect Indigenous groups.

To this end, DFO and VFPA have discussed the steps and schedule for engagement and have concluded that it would be very optimistic to presume we would be able to successfully deliver a robust engagement strategy prior to the current expiry date - we anticipate the end of calendar year being much more realistic. In their request, VFPA has not proposed a term for the extension but to ensure we allow for meaningful engagement opportunities I am considering the end of March being appropriate.

Given our history of engagement to date on this file, I wanted to be sure that TWN is aware of our consideration of this request and provide you with an opportunity to provide your comments or concerns prior to my making a recommendation to my Regional Director regarding this request.

I look forward to hearing from you.

Regards,

Byron Nutton, RPBio

A/Team Lead | Chef d'équipe Intérimaire
Partnerships, Standards and Guidelines | Partenariats, Normes et lignes directrices
Fisheries Protection Program | Programme de protection des pêches
Fisheries and Oceans Canada | Pêches et Océans Canada
Pacific Region | Région du Pacifique

250-618-4268

From: [Nutton, Byron](#)
To: [Webb, Cheryl](#)
Cc: [Magnan, Alain](#)
Subject: RE: Extension of VFPA's Agreement for Habitat Banking - For your signature
Date: 2018-June-29 4:04:00 PM

I discussed the proposed extension with [REDACTED] TWN. They have a preference to see this process completed by the end of December in order to better align with other initiatives, but he was not opposed to a March timeframe based on my assurance we would proceed with a work plan that sees this process completed by the end of December, with any time beyond that being used to respond to somewhat exigent circumstances rather than simply more time.

My read of things is that we continue to have a very good working relationship with TWN on this file and that going with March vs December will not change that.

I am of the opinion that it would be best to proceed with an extension to March 31, 2019 - right now we are only engaged with TWN because they came to us, so this extension (as with the last) is fairly simple, but once we start engaging the broader Indigenous community any additional extension may not be so easy to consider.

Cheers, Byron

From: Webb, Cheryl
Sent: 2018-June-29 1:36 PM
To: Magnan, Alain <Alain.Magnan@dfo-mpo.gc.ca>
Cc: Nutton, Byron <Byron.Nutton@dfo-mpo.gc.ca>; Fogliato, Cara <Cara.Fogliato@dfo-mpo.gc.ca>
Subject: RE: Extension of VFPA's Agreement for Habitat Banking - For your signature

Can you please let me know TWN's views on this?

Thanks, Cheryl

From: Magnan, Alain
Sent: Friday, June 29, 2018 1:00 PM
To: Webb, Cheryl <Cheryl.Webb@dfo-mpo.gc.ca>
Cc: Nutton, Byron <Byron.Nutton@dfo-mpo.gc.ca>; Fogliato, Cara <Cara.Fogliato@dfo-mpo.gc.ca>
Subject: Extension of VFPA's Agreement for Habitat Banking - For your signature
Importance: High

Cheryl,

As we have previously discussed, attached for your signature is a letter to the Port advising them that we are extending the existing habitat banking agreement to the end of the fiscal period to provide sufficient time for completion of Indigenous engagement and consultations. For your reference, I've also attached the initial extension letter which was sent to the Port in 2017.

Could you please sign the document and have Mark forward the letter via e-mail to Robin Silvester, with a cc to myself and Byron. I can send the letter if required, just let me know.

Below is some additional information for your reference.

Thanks.

Al

-
- The current extension granted last year expires on September 10th, 2018
 - VFPA has asked for another extension but not specified a term, however they have clearly expressed their preference to have a renewed agreement in place by the end of December
 - DFO and VFPA have jointly developed a work plan that sees Indigenous engagement completed by the end of November with consideration of any input and a decision on a new agreement before the end of December
 - Given our experience and considering other initiatives that are underway (including Indigenous engagement on RBT2 and FA Review), it is our recommendation to extend the agreement to the end of fiscal.
 - We have discussed the proposed extension with [REDACTED] TWN. They have a preference to see this process completed by the end of December in order to better align with other initiatives, but he was not opposed to a March timeframe based on my assurance we would proceed with a work plan that sees this process completed by the end of December, with any time beyond that being used to respond to somewhat exigent circumstances rather than simply more

s.19(1)

Pringle, Sarah

From: Webb, Cheryl
Sent: June-29-18 1:46 PM
To: Magnan, Alain
Cc: Nutton, Byron; Fogliato, Cara
Subject: Re: Extension of VFPA's Agreement for Habitat Banking - For your signature

Ignore this, I see it in the material...

Sent from my BlackBerry 10 smartphone on the Rogers network.

From: Webb, Cheryl
Sent: Friday, June 29, 2018 1:35 PM
To: Magnan, Alain
Cc: Nutton, Byron; Fogliato, Cara
Subject: RE: Extension of VFPA's Agreement for Habitat Banking - For your signature

Can you please let me know TWN's views on this?

Thanks, Cheryl

From: Magnan, Alain
Sent: Friday, June 29, 2018 1:00 PM
To: Webb, Cheryl <Cheryl.Webb@dfo-mpo.gc.ca>
Cc: Nutton, Byron <Byron.Nutton@dfo-mpo.gc.ca>; Fogliato, Cara <Cara.Fogliato@dfo-mpo.gc.ca>
Subject: Extension of VFPA's Agreement for Habitat Banking - For your signature
Importance: High

Cheryl,

As we have previously discussed, attached for your signature is a letter to the Port advising them that we are extending the existing habitat banking agreement to the end of the fiscal period to provide sufficient time for completion of Indigenous engagement and consultations. For your reference, I've also attached the initial extension letter which was sent to the Port in 2017.

Could you please sign the document and have Mark forward the letter via e-mail to Robin Silvester, with a cc to myself and Byron. I can send the letter if required, just let me know.

Below is some additional information for your reference.

Thanks.

Al

-
- The current extension granted last year expires on September 10th, 2018
 - VFPA has asked for another extension but not specified a term, however they have clearly expressed their preference to have a renewed agreement in place by the end of December

- DFO and VFPA have jointly developed a work plan that sees Indigenous engagement completed by the end of November with consideration of any input and a decision on a new agreement before the end of December
- Given our experience and considering other initiatives that are underway (including Indigenous engagement on RBT2 and FA Review), it is our recommendation to extend the agreement to the end of fiscal.
- We have discussed the proposed extension with [REDACTED] TWN. They have a preference to see this process completed by the end of December in order to better align with other initiatives, but he was not opposed to a March timeframe based on my assurance we would proceed with a work plan that sees this process completed by the end of December, with any time beyond that being used to respond to somewhat exigent circumstances rather than simply more

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pages 271 to / à 272**

Thorpe, Suzanne

From: Olson, Charlotte <Charlotte.Olson@portvancouver.com>
Sent: Friday, July 6, 2018 2:06 PM
To: Nutton, Byron; Thorpe, Suzanne
Cc: Ruffo, Gord; Scoble, Jemma; Bryce, James
Subject: RE: June 26 DFO-VFPA Meeting RE Habitat Bank Arrangement and Indigenous Engagement - Follow Up Items
Attachments: 2018-06-26-03-600-VFPA-HEP-DFO Meeting Summary-Actions-Rev0.pdf; 2018-06-26-03-600-VFPA-DFO Info Package Details-Rev0.pdf; 2018-07-06 VFPA DRAFT Annex F and G Indigenous Consultation and Engagement-RevA.docx
Importance: High

Hi Byron and Suzanne

To keep track of actions and what we discussed at our June 26 meeting (10-11am) at VFPA:

1. I've prepared a short summary of actions (first attachment). Please don't hesitate to respond if I've missed something, or captured something in error.
2. Also re-attached is the 1-page PDF of the materials we agreed to assemble (referred to in the actions list).
3. Lastly, also Byron – as requested, attached is a draft (dated July 6/18) of the proposed draft Annex's (Annex's F and G) that VFPA has prepared (to attach to draft Arrangement) – related to Indigenous engagement/consultation.
 - Annex F – pertains to DFO's consultation (using the text provided by you)
 - Annex G – pertains to VFPA's consultation (same content you have previously seen)
 - You will see in the next draft of the Arrangement (that VFPA is still working on) – the context provided for each of the proposed Annex's (per DFO's request to include)

Later next week, I will send out Calendar invites for our August meeting (Aug 21-23 TBC) – thanks for info below Byron.

Cheers,

Charlotte Olson P.Geo., PMP
Manager, Infrastructure Habitat Development

CELL: 604.349.4111

s.19(1)

From: Nutton, Byron [mailto:Byron.Nutton@dfo-mpo.gc.ca]
Sent: Wednesday, June 27, 2018 12:56 PM
To: Olson, Charlotte <Charlotte.Olson@portvancouver.com>
Cc: Thorpe, Suzanne <Suzanne.Thorpe@dfo-mpo.gc.ca>
Subject: RE: June 26 DFO-VFPA Meeting RE Habitat Bank Arrangement and Indigenous Engagement

Hi Charlotte,

In follow-up to our meeting, with respect to upcoming meeting dates...

- Document Released Under the Access to Information Act / Document divulgué en vertu de la Loi sur l'accès à l'information
1. Suzanne and I have pencilled-in Aug 21-23 for the pre-engagement prep meeting and are waiting for you to propose a specific date/time.
 2. After checking my calendar, unfortunately I am not available the week of September 17-21, but Suzanne and I have confirmed our availability for Tues-Thurs the weeks of Sep 10th and 24th, and Tues-Thurs the weeks of Oct 1st, 9th and 16th
 3. I have confirmed with Tola that at this time DFO does not have any scheduled sessions for the next phase of engagement on the Fisheries Act review, but she suspects that things will be starting to happen around end of September or early October – once we have proposed dates for engagement on banking I will let her know
 4. Lorigena will not be available to assist/attend at that time, but I will work with Tola to identify Indigenous engagement support as needed

Regards,

Byron

From: Olson, Charlotte [mailto:Charlotte.Olson@portvancouver.com]

Sent: 2018-June-26 4:20 PM

To: Nutton, Byron <Byron.Nutton@dfo-mpo.gc.ca>; Thorpe, Suzanne <Suzanne.Thorpe@dfo-mpo.gc.ca>

Cc: Scoble, Jemma <Jemma.Scoble@portvancouver.com>; Ruffo, Gord <Gord.Ruffo@portvancouver.com>

Subject: June 26 DFO-VFPA Meeting RE Habitat Bank Arrangement and Indigenous Engagement

Hi Byron and Suzanne, thanks again for meeting at VFPA today from 10-11am to discuss our next steps on Indigenous engagement and the status of the VFPA-DFO habitat bank arrangement.

- Attached is the document we handed out at the meeting – which summarizes our proposed info package content and approach to prepare for August 2018 distribution, so you have a digital copy.

As discussed, we will work toward our July 13 date for having our content ready, for review the following week.

Also – Byron, by early July, we will endeavor to provide you with a copy of the draft Indigenous consultation Annex (to our habitat banking arrangement), that we have been working on - as you requested.

Lastly – Suzanne, please see the below link and second PDF attachment to this email for an overview of our completed New Brighton Park Shoreline Habitat Restoration Project

<https://www.portvancouver.com/development-and-permits/development/new-brighton-park-shoreline-habitat-restoration-project/>

Cheers!

Charlotte Olson P.Ge., PMP
Manager, Infrastructure Habitat Development



Vancouver Fraser Port Authority
100 The Pointe, 999 Canada Place
Vancouver, B.C. Canada V6C 3T4

P: 604.665.9590 | CELL: 604.349.4111
portvancouver.com

MEETING SUMMARY/ACTIONS: DFO/VFPA Regular Liaison Meeting – Focus on Indigenous Engagement Plan/Materials for Fall Consultation
DATE: July 26, 2018 (10-11am)

LOCATION: VFPA Office (Fraser Meeting Room)

NEXT MEETING – August 2018 TBC

ATTENDEES:
DFO Representatives:

Byron Nutton (BN), DFO
Suzanne Thorpe (ST), DFO

Habitat Enhancement Program/VFPA Representatives:

Gord Ruffo, VFPA (GR); Charlotte Olson, VFPA (CO); Jemma Scoble, VFPA (JS)

Charlotte Olson & Gord Ruffo led the meeting following the June 26, 2018 Agenda.

CURRENT MEETING ACTIONS:

No.	DESCRIPTION:	ACTION BY:	ACTION DUE DATE:	COMMENTS:
June 26/18 Meeting Actions:				
1.	VFPA and DFO to prepare consultation material drafts as agreed to at June 26 meeting, drafts due by July 13	VFPA (CO) DFO (BN)	July 13	See Materials List handout discussed at meeting BN to confirm the planned sharing of DFO Guidance doc. (and template) in packages
2.	VFPA and DFO to review and finalize all consultation materials by July 27	VFPA (CO) DFO (BN)	July 27	See Materials List handout and schedule discussed at meeting
3.	VFPA to send packages out to Aboriginal groups in early August	VFPA (JS)	Early August	
4.	VFPA to setup meeting in later August with DFO to plan for Fall consultation meetings	VFPA (CO)	July 13	CO to send meeting invite, considering DFO availability as provided by email, meeting targeted for Aug 21-23 TBC

No.	DESCRIPTION:	ACTION BY:	ACTION DUE DATE:	COMMENTS:
5.	VFPA to share draft "Consultation Annexes" with DFO (BN)	VFPA (CO)	July 6 Complete	Charlotte sent by email on July 6 th to BN Annexes are intended to be included within new Arrangement
6.	VFPA to share Project Overview of New Brighton Park restoration project	VFPA (CO)	June 26 Complete	Charlotte sent by email on June 26 following the meeting to ST
7.	VFPA to prepare Project Confirmation Document (incl. any supplementary info) for Maplewood Marine Restoration Project, and submit to DFO (BN) for review and confirmation	VFPA (CO)	Target by July 27	Per Byron's input at CEP FAA meeting on June 26/18, VFPA to provide additional information regarding proposed productivity gains in the Southwest Channel area of the Maplewood project (proposed for habitat banking purposes) ***Separate from CEP FAA process
Previous 2018 Meeting Actions:				
8.	DFO (BN) review VFPA's 2017 Annual Reports submitted to DFO. Confirm current Dec 31/17 bank ledger totals, and acknowledge by letter (or equivalent) to VFPA the 2017 habitat credit deposit for New Brighton Park	DFO (BN)	TBD by BN	BN to provide acknowledgement (in writing) to VFPA of deposit of New Brighton Park habitat credits to VFPAs habitat bank in 2017; previous deposit process with Holly Pulvermacher (DFO) included a letter issued by DFO to VFPA confirming habitat bank credit totals as reported in Annual Report.

VFPA/DFO Information Packages – Proposed Content

June 26, 2018

TOPIC	DETAILS ON CONTENT OF INFO PACKAGE	PREP BY:	NOTES
1. VFPA Cover Letter	<ul style="list-style-type: none"> • Introduction of consultation topic • Anticipated timelines and dates of consultation 	VFPA	
2. HEP Overview	<ul style="list-style-type: none"> • HEP 101 • Service Area Map • Map of current projects 	VFPA	
3. Overview of VFPA's <u>Indigenous Consultation and Engagement Process</u> for its projects	<ul style="list-style-type: none"> • A description Indigenous engagement during the project development process <ol style="list-style-type: none"> 1. Project Identification 2. Project Definition 3. Design Development 4. Permitting and Approvals 5. Implementation/Construction 6. Post-Construction • Project Example (New Brighton Park) 	VFPA	
4. Overview of Offsetting with Habitat Banks	<ul style="list-style-type: none"> • A description of how habitat banks are used to offset serious harm • A description of how habitat credits are deposited into the habitat bank • A description of how habitat credits may be withdrawn • Details on DFO-led Indigenous consultation process associated with withdrawal 	DFO	<ul style="list-style-type: none"> • Is DFO going to share the Interim Guidance Document?

Key Dates (proposed):

- July 13 VFPA/DFO share first draft of info packages
- July 16-20 VFPA/DFO review and comment on draft info packages
- July 23-26 Finalization of info packages
- **July 27 Info Packages complete**
- August 1 Distribution to Aboriginal groups

ANNEX F

INDIGENOUS CONSULTATION AND ENGAGEMENT: USE OF HABITAT CREDITS TO MEET OFFSETTING REQUIREMENTS OF A *FISHERIES ACT* AUTHORIZATION

Consultation with Indigenous peoples is required when Fisheries and Oceans Canada (DFO) makes a regulatory decision that may adversely impact potential or established Aboriginal or treaty rights, Indigenous groups and their related interests. Under the fisheries protection provisions of the *Fisheries Act*, a regulatory decision occurs when DFO contemplates the decision to authorize a work, undertaking or activity under section 35(2)(b) of the *Fisheries Act*. Indigenous consultation will normally take place after DFO has received an Application for Authorization and determined that the information requirements set out in the Applications for Authorization under [Paragraph 35(2)(b) of the *Fisheries Act Regulations*] **[NTD: Check cross reference.]** have been met.

DFO will consult on the work, undertaking or activity being authorized under section 35(2)(b) of the *Fisheries Act* and any other aspects of the Authorization that have the potential to adversely impact potential or established Aboriginal or treaty rights, and related interests. The goal of these consultations will be to identify measures to avoid, minimise, or if required accommodate for, potential impacts of the work, undertaking or activity on the rights or interests of Indigenous peoples through mitigation and offsetting to be incorporated into the Authorization.

As the purpose of utilizing habitat banking credits is to meet offsetting requirements of an Authorization issued under section 35(2)(b) of the *Fisheries Act*, the proposed use of habitat banking credits is subject to Indigenous consultation.

ANNEX G

INDIGENOUS CONSULTATION AND ENGAGEMENT: CONSERVATION PROJECT DEVELOPMENT BY HEP

Overview and Purpose

Indigenous consultation and engagement is a key element for the successful delivery of habitat creation and enhancement (conservation) projects undertaken by VFPA's Habitat Enhancement Program (HEP). This Annex describes the process implemented by HEP for developing conservation projects and identifies key points during the process for input and involvement by Indigenous groups. HEP's consultation and engagement with Indigenous groups aims to identify and address project-related impacts, to design and implement appropriate mitigation measures, and to explore opportunities for Indigenous involvement such as participation in field studies and/or employment, training and contracting. Subject to the discretion and direction of applicable regulatory agencies, including VFPA, HEP also aims to undertake consultation with Indigenous groups in accordance with the requirements of regulatory processes that are applicable to the conservation project (such as VFPA's Project and Environmental Review Process).

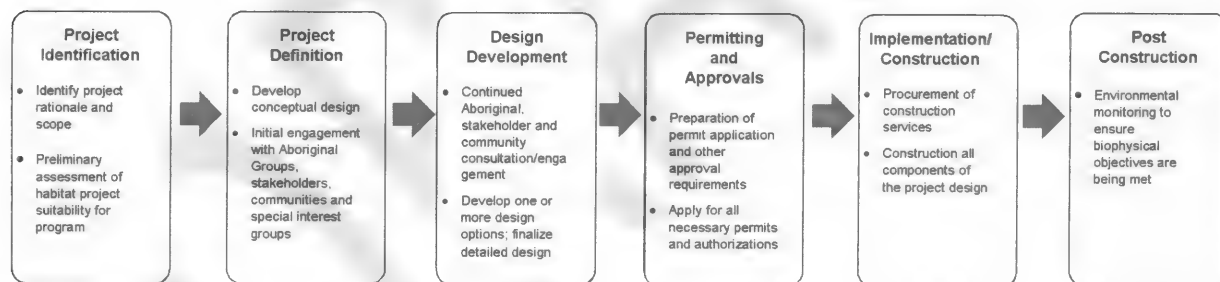
Conservation Project Development Process

The development of conservation projects is achieved through six basic project management phases that are used to guide and control the project from start to finish.

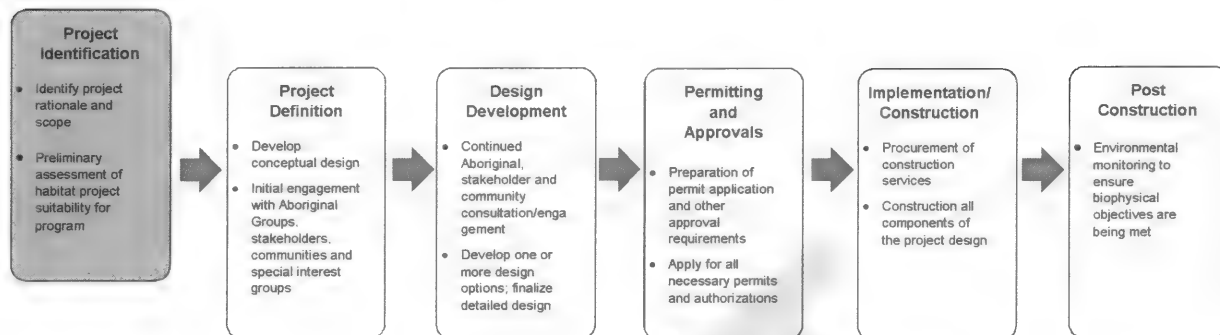
Commencing with the identification of a potential project, the process provides for the structured development and advancement of all required components required for project delivery.

- Phase 1 (**Project Identification**) – The “idea” or the vision of what could be achieved.
- Phase 2 (**Project Definition**) – What are the project objectives? Constraints?
- Phase 3 (**Design Development**) - How will the project objectives be achieved?
- Phase 4 (**Permitting and Approvals**) – Obtaining formal permission to perform the work.
- Phase 5 (**Implementation/Construction**) – Construction of the habitat project.
- Phase 6 (**Post Construction**) – Ensuring long-term success of the habitat project.

The illustration below depicts these six key project management phases and provides the key tasks associated with each.



Phase 1 - Conservation Project Identification



The identification of potential conservation projects is a critical component of the project delivery process. Considerations include habitat need, habitat productivity, feasibility, cost, land tenure, DFO confirmation and Indigenous matters.

Indigenous Consultation and Engagement

- HEP seeks input from Indigenous groups on identification of potential habitat enhancement sites*
- HEP seeks input from Indigenous groups on conservation projects identified by others*
- Indigenous groups share available traditional knowledge, information and studies*

Phase 2 - Conservation Project Definition

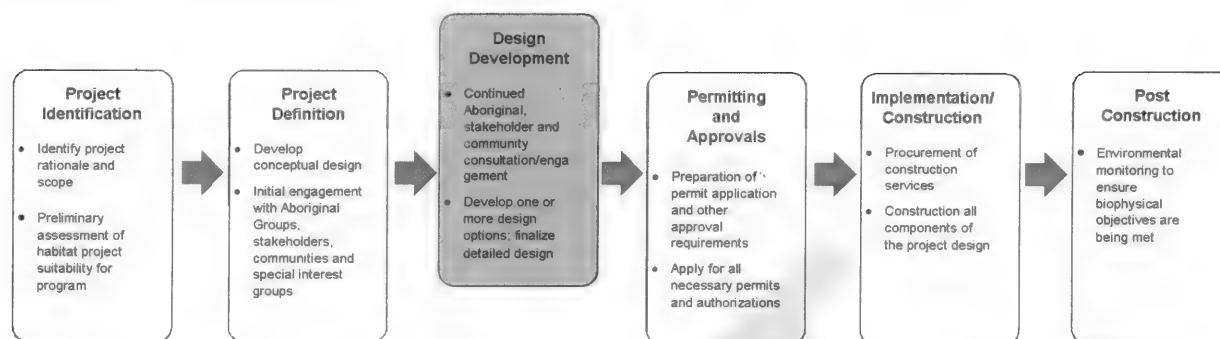


The development of conceptual designs is key in defining what a conservation project could include. Using these concept designs, initial engagement and consultation on specific project features can commence.

Indigenous Consultation and Engagement

- *HEP consults Indigenous groups on preferred engagement activities for project (e.g. Aboriginal Technical Design Committee)*
- *HEP consults Indigenous groups on project concept*
- *HEP identifies potential habitat values (i.e. credit estimates) that could be created and engages with interested Indigenous Groups*
- *Indigenous groups share Traditional Knowledge with HEP*
- *HEP identifies opportunity for involving Indigenous groups in field studies and assessments*
- *HEP commences planning for Indigenous involvement throughout project (e.g. contracting, employment and training opportunities)*

Phase 3 - Design Development

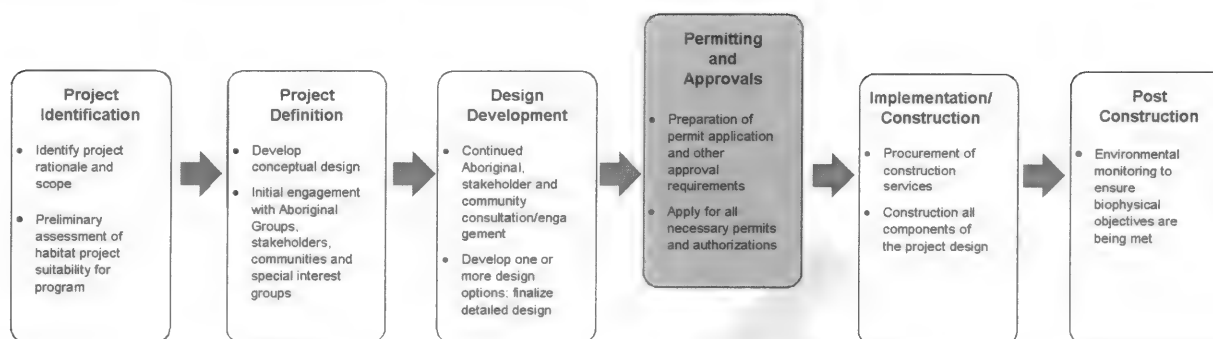


In the design phase, one or more designs are developed and evaluated. Through an iterative design process, a final design is selected and is refined to include all details necessary for construction.

Indigenous Consultation and Engagement

- *HEP consults Indigenous groups on the design options*
- *HEP considers Indigenous feedback and refines design of project where appropriate (including selection of plant species)*
- *Where required, HEP undertakes further consultation with Indigenous groups on the design*
- *HEP finalizes the design*
- *HEP shares final design with Indigenous groups*
- *HEP confirms habitat values (i.e. credits) and consults with Indigenous groups*
- *HEP obtains DFO confirmation of appropriateness of habitat project for the Habitat Enhancement Program*
- *HEP plans for continued Indigenous involvement in subsequent phases*

Phase 4 - Permitting and Approvals

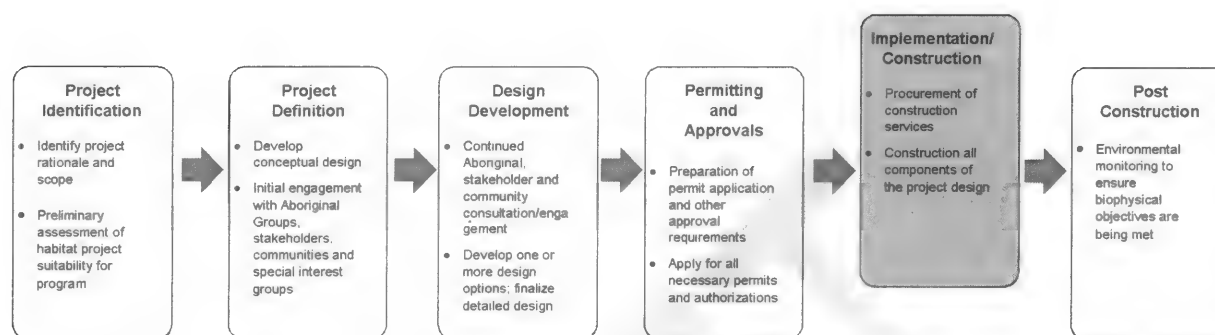


Permits and approvals that are required must be addressed on a project-by-project basis as regulatory requirements and land ownership can vary significantly.

Indigenous Consultation and Engagement

- *HEP engages with Indigenous groups in relation to permits and approvals*
- *HEP develops a summary of permits and approvals required and shares with Indigenous groups*
- *HEP seeks Indigenous input and support on permit applications*
- *HEP notifies Indigenous groups on submission of permit applications*
- *Regulators and permitting authorities may undertake Indigenous consultation*
- *HEP plans for continued Indigenous involvement in subsequent phases*

Phase 5 - Implementation/Construction



The conservation project takes shape during the Implementation/Construction Phase.

Indigenous Consultation and Engagement

- *HEP identifies approach to procurement and determines opportunities for Indigenous involvement/benefits*
- *HEP monitors conditions of approval/permits and any commitments to Indigenous groups*
- *HEP continues to keep Indigenous groups updated on progress of construction*
- *HEP plans for continued Indigenous involvement in Post Construction Phase*

Phase 6 - Post Construction



Indigenous Consultation and Engagement

- *HEP shares Post Construction Monitoring Plan with Indigenous groups*
- *Potential contracting opportunities for Indigenous groups (e.g. maintenance, monitoring)*

Thorpe, Suzanne

From: Nutton, Byron
Sent: Tuesday, July 10, 2018 1:59 PM
To: Thorpe, Suzanne
Subject: FW: Letter Regarding Vancouver Port Authority Habitat Banking Agreement
Attachments: RD Signed Letter.pdf

Hey Suzanne. Please save to the appropriate locations. Thanks.

From: Fogliato, Cara
Sent: 2018-July-03 8:32 AM
To: Robin.silvester@portvancouver.com
Cc: Magnan, Alain <Alain.Magnan@dfo-mpo.gc.ca>; Nutton, Byron <Byron.Nutton@dfo-mpo.gc.ca>
Subject: Letter Regarding Vancouver Port Authority Habitat Banking Agreement

Good morning Mr. Silvester,

Please find attached a letter from Cheryl Webb, Regional Director – Ecosystems Management Branch regarding the extension of the Vancouver Fraser Port Authority's existing Habitat Banking Agreement.

Thank you,

Mark Johal on behalf of:

Cara Fogliato
Executive Assistant to Regional Director, Ecosystem Management Branch
Fisheries and Oceans Canada / Government of Canada
Cara.Fogliato@DFO-mpo.gc.ca / Tel: 604-666-6285



Fisheries and Oceans
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Pacific Region
Suite 200 – 401 Burrard Street
Vancouver, British Columbia
V6C 3S4

Pêches et Océans
Canada

Région du Pacifique
Pièce 200 – 401 rue Burrard
Vancouver C.-B.
V6C 3S4

JUL 03 2018

Our file Notre référence
12-HPAC-00002

Robin Silvester, President and CEO
Vancouver Fraser Port Authority
100 The Point
999 Canada Place
Vancouver, BC
V6C 3T4
Robin.silvester@portvancouver.com

Dear Mr. Silvester,

Re: Extension of Existing Vancouver Fraser Port Authority Habitat Banking Agreement.

As you are aware, Fisheries and Oceans Canada (DFO) and the Vancouver Fraser Port Authority (VFPA) entered into a Working Agreement concerning Procedures for the Development and Operation of the Port Metro Vancouver Habitat Bank, dated July 31, 2012 and signed and executed on September 10, 2012. The conditions of this Working Agreement specified a 5-year term expiring on September 10, 2017; however on June 30, 2017 DFO granted a one-year extension to allow DFO and VFPA to continue discussions regarding the establishment of a renewed long-term agreement.

It is my understanding that over the course of the last year DFO and VFPA staff working on this file have made substantial progress on proposed terms and conditions for a renewed agreement, and have developed a work plan to engage potentially affected Indigenous groups and receive their input to inform our development and consideration of such an agreement. It is my further understanding that the timeline proposed in this work plan anticipates that engagement will be completed by the end of November 2018 with consideration of any input and a decision on a new agreement before the end of December, both of which are beyond the current expiration date of the existing agreement.

I am in receipt of an e-mail dated June 19, 2018 from Gilles Assier, VFPA's Director of Infrastructure Sustainability, requesting a further extension to the existing agreement to allow for this Indigenous engagement work plan to be implemented within the proposed timeline. I understand that VFPA is interested in completing this process as soon as practical and assure you that I am supportive of DFO and VFPA staff working toward the timelines identified above. However, in the interest of implementing a robust Indigenous engagement process that can be responsive to circumstances that may arise and allowing for ample consideration of any input received, I feel that it would be appropriate to provide additional time.

In this regard, please consider this letter as confirmation of an extension of the existing Working Agreement concerning Procedures for the Development and Operation of the Port Metro Vancouver Habitat Bank, to a new expiry date of March 31, 2019.

Canada

Should you have any questions, please feel free to contact Byron Nutton at Byron.nutton@dfp-mpo.gc.ca.

Regards,



Cheryl Webb
Regional Director
Ecosystems Management Branch
Pacific Region

Cc: Alain Magnan, FPP Nanaimo
Byron Nutton, FPP Nanaimo

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Boutillier, Jaclyn

From: Thorpe, Suzanne
Sent: Tuesday, July 10, 2018 12:48 PM
To: Nutton, Byron
Subject: draft VFPA IG Engagement deck for your review and feedback
Attachments: 2018-07-05_HabitatBanking_VFPA-DFO_IGconsult_V1.ppt; 2018-07-10_HabitatBanking_VFPA-DFO_IGconsult_V2.ppt

Importance: High

Hey Byron;

I am attaching 2 presentations to this email:

- V1 is a longer version with more details about the FA and its processes and policies that lend to Habitat Banking ... it's always easiest to have more than less, then delete, so its background information heavy.
- V2 is a shorter version that is based on the initial feedback rec'd by Bruce on V1 (per below) and some revisions still needed on it.

I am going to stop drafting and editing for now and wait for your comments on the materials. I don't feel that we need to stick directly to the VFPA request exclusively. In previous IG sessions for the FAR, presentation materials were quite fulsome, so much so that they also served as the information package for the groups to take away as information to comment on. If it is determined that a shorter, more point form deck is most appropriate, then it will be necessary to have quite a lot of information in a hand-out of FAQs. My feeling is that there is a catch-22 w/r/t Bruce's suggestion to pair it down further and including sufficient information that we receive feedback and comments.

In my experience IGs tend to like step-by-step lead through, otherwise you have to answer a lot more questions ... which may lend toward some of the information presented in V1.

Maybe you should have a quick discussion with Tola for context, and another check-in with the Port to see how fulsome we need to be (i.e., how educated the audience is expected to be). For FAR, we assumed most representatives would not be super 'legislatively' savvy. I'll leave those thoughts for your consideration for now.

Hope you had a good vacay!

Suzanne

From: Runciman, Bruce
Sent: 2018-July-09 4:01 PM
To: Thorpe, Suzanne
Subject: RE: If you have time for some initial feedback ...

Thanks Suzanne for following up on your voicemail / sending the draft PPT.

As far as initial feedback ... easy for me to say stuff when I don't have to deliver the talk!

Still, here goes.

- Stick to VFPA's requested talking points as an outline.

- Drop the detailed context slides (3-7). You can reference contextual points as-needed while talking about habitat banks. You can even tell the meeting that you're purposefully staying out of the legislation and policy and legal definition weeds to due to legislation being in flux and the requested topic being habitat banking.
- Jump right into habitat banks after the outline and state that they're a last resort way of offset lost fish habitat productivity when 1. DFO has elected to use our legislative authority to authorize unavoidable harm to fish / fish habitat and 2. DFO has decided that other forms of offsetting are not available or not appropriate.
- Use your offsetting slides to make point that habitat banking has to satisfy the same criteria as other, more preferred offsetting approaches.
- Drop slides 10-13 because you only need to refer to them in bullets as the preferred offsetting options ... but maybe steal the pictures to use as a collage on slide 9.
- Rework the habitat banking slides (14-20) to address the VFPA's talking points one at a time and reduce the amount of text on all the habitat banking slides. Stick to brief bullets and/or graphics (like slide 18), speaking to them with details while presenting in conversational language.
- Emphasise slide 21 information wherever appropriate throughout the talk so that the IGs get the message that DFO will be talking to them about not just establishing the bank, but also about any harm we may authorize and about appropriate offsetting for any harm we may authorize (including habitat banks) ... so full circle.

Not sure if all that is helpful? Please take it as just one person's ideas / initial feedback?

Talk soon, Bruce.

From: Thorpe, Suzanne
Sent: July 9, 2018 2:16 PM
To: Runciman, Bruce
Subject: If you have time for some initial feedback ...

Hey Bruce;

I called you re: the attached draft presentation that will be used to undertake the VFPA-led, DFO-assisted Indigenous Engagement sessions this fall for the VFPA Habitat Banking Arrangement formalization. I am still working on this draft presentation ... and it has to be prepared by Wednesday, July 11th when Byron returns.

Hoping that you can have a brief look and let me know what you think. Any major blemishes/ shortfalls – thoughts??? I am a bit unsure on our “consultation processes” for making decisions under authorization – as far as I am aware the general process is a letter and contacting them if we think they have an interest ... ?

Obviously as well, the final presentation will need to have some additional photos/ maybe a video or something in it to make it a little more entertaining ... however, I am trying to keep it short and simple.

VFPA requested that DFO put together “An Overview of Offsetting with Habitat Banks”, including:

- A description of how habitat banks are used to offset serious harm;
- A description of how habitat credits are deposited into the habitat bank
- A description of how habitat credits may be withdrawn
- Details on DFO-led Indigenous Consultation process associated with credit withdrawal

Suzanne Thorpe

Partnerships, Standards and Guidelines/ Partenariats, normes et lignes directrices
Fisheries Protection Program/ Programme de protection des pêches
Ecosystem Management Branch / Direction de la gestion des écosystèmes
Fisheries and Oceans Canada (DFO), Pacific Region/ Pêches et Océans Canada, Région du Pacifique
Government of Canada/ Gouvernement du Canada
200-401 Burrard Street, Vancouver BC V6C 3S4 (13th Floor)/ 401 Burrard Street, bureau 200, Vancouver (C.-B.) V6C 3S4
Telephone: (604) 666.3512

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Title

Committee

Date

To remove SECRET:

- Click View
- Click Slide Master
- Select text box on (title and other slides) and hit delete
- On the View menu, click Normal to return to editing



Discussion

- Fisheries Act
 - Legislative context
 - Fisheries Protection Policy Statement
- Authorizations
 - Hierarchy of Measures
 - Process
- Offsetting Measures
 - Fisheries Productivity Investment Policy
- Habitat Banking



Legislative Context

- DFO's Fisheries Protection Program (FPP) is responsible for the administration of the "fisheries protection provisions" of the *Fisheries Act* (FA), and certain permitting provisions under the *Species At Risk Act* (SARA).
- As of 2012, the fisheries protection provisions are provided under the section 35(1) prohibition which states that:
"No person shall carry on any work, undertaking or activity that results in serious harm to fish that are part of a commercial, recreational or Aboriginal fishery (CRA), or to fish that support such a fishery".
- "Serious harm to fish" is defined in section 2 of the *Fisheries Act* as:
"The death of fish, or permanent alteration to or destruction of fish habitat".
- In sections 20 & 21 of the FA flow provisions require the provision of sufficient water and unimpeded fish passage.



Policy Context

The *Fisheries Protection Policy Statement* provides further interpretation of serious harm to fish as:

- The **death of fish**;
- A **permanent alteration to fish habitat** of a spatial scale, duration or intensity that limits or diminishes the ability of fish to use such habitats as spawning grounds, or as nursery, rearing or food supply areas, or as a migration corridor, or any other area in order to carry out one of more of their life processes;
- The **destruction of fish habitat** of a spatial scale, duration, or intensity that fish can no longer rely upon such habitat for use as spawning grounds, or as nursery, rearing, or food supply areas, or as a migration corridor, or any other area in order to carry out one of more of their life processes.



Greaves Island – Brad Koroluk, DFO



Fisheries Act Authorizations

- Proponents are responsible to avoid and mitigate serious harm to fish that could result from their projects.
- An authorization under paragraph 35(2)(b) of the *Fisheries Act* is required when options to completely avoid *serious harm to fish* are not possible.
 - Applies to projects likely to result in a localized effect to fish populations or fish habitat in the vicinity of the project and residual harm to fish remains after mitigation measures are applied.
- When the Department contemplates the issuance of an FA Authorization, the Minister must take into account the factors listed under Section 6 of the FA:
 - The contribution of the relevant fish to the ongoing productivity of CRA fisheries;
 - Fisheries Management Objectives;
 - Whether there are measures and standards to avoid, mitigate or offset serious harm to fish that area part of a CRA fishery, or fish that support such a fishery; and,
 - The public interest*

* inclusive of Aboriginal interests



Hierarchy of Measures for Fisheries Protection

The implementation of measures and standards to reduce to “avoid, mitigate and offset” impacts to fish and fish habitat are built on a hierarchy that is internationally recognized as a best practice to reduce risks to biodiversity.

Avoidance Measures:

- Avoid impacts through project relocation or redesign, or improved standards of operation.

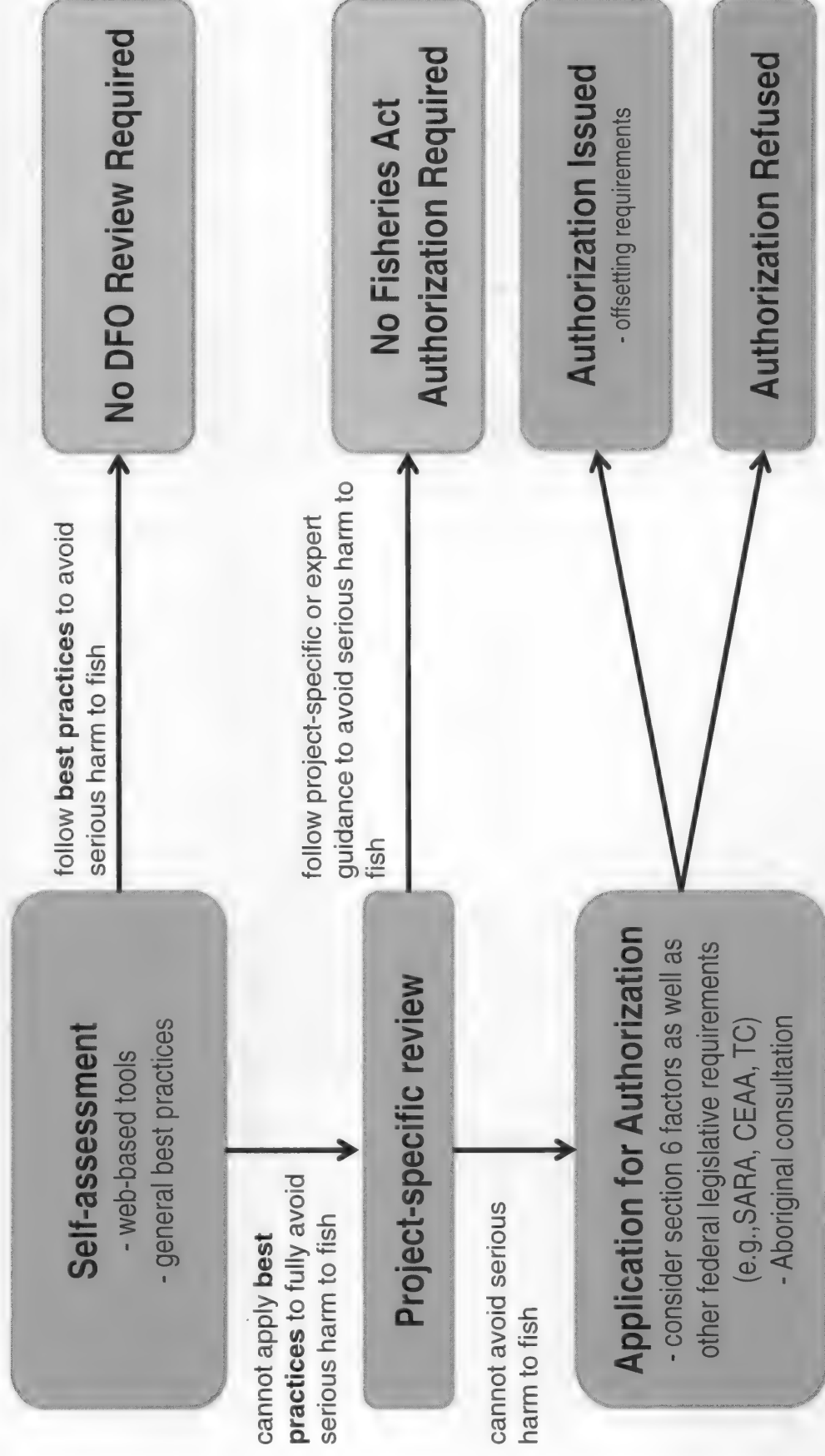
Mitigation Measures:

- Minimize the spatial scale, intensity or duration of impacts through project timing, use of operational guidance and best practices.

Offsetting Measures:

- Developed by Proponents to counter-balance any *residual serious harm to fish* that occurs resulting from their project.

Review Process Diagram





Fisheries and Oceans
Canada

Pêches et Océans
Canada

Offsetting

ST2

Offsetting measures counterbalance *serious harm to fish* by maintaining or improving fisheries productivity after all feasible measures to avoid and mitigate impacts have been undertaken.



Guiding Principles:

1. Offsetting measures must support fisheries management objectives and restoration priorities.
2. Benefits from offsetting measures must balance project impacts.
3. Offsetting measures must provide additional benefits to the fishery.
4. Offsetting measure must generate self-sustaining benefits over the long term.

Slide 8

ST2

Mention Guide!
DFO-MPO, 7/9/2018

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Fisheries and Oceans
Canada

Pêches et Océans
Canada

Offsetting Measures

Department guidance on offsetting is provided in the *Fisheries Productivity Investment Policy: A Proponent's Guide to Offsetting*, November 2013.

Offsetting measures fall under 3 main categories:

1. Habitat Restoration and Enhancement *
 2. Habitat Creation *
 3. Chemical or Biological Manipulations
- Complementary Measures
 - In-kind and out-of-kind approach

* Habitat Banking most suited for 1, 2.



Habitat Restoration and Enhancement



- “To improve habitat function and productivity through physical manipulation of existing habitat
- Areas where habitat conditions are considered poor or degraded provide opportunity for the most benefit”².
 - ✓ River bank stabilization
 - ✓ Re-vegetation of riparian areas
 - ✓ Removal of anthropogenic barriers to fish migration
 - ✓ Increasing shoreline complexity etc.



Habitat Creation



- “Habitat creation is the development or expansion of aquatic habitat into a terrestrial area
- These offsetting measures are generally used when productivity that was destroyed or degraded by a project cannot be restored by manipulation of the original or surrounding aquatic habitat”².
 - ✓ Creation or expansion of:
 - Natural stream channels
 - Side channel habitats
 - Wetlands
 - Bays or marshes



Chemical or Biological Manipulations



• “These measures should be used only when the other groups of offsetting measures are not available

• And only under specific circumstances, such as where the site-specific issues are well understood, the limitations to fisheries productivity are known, and fisheries management plans contain clear objectives for the fishery”².

- ✓ Chemical manipulation of water bodies
- ✓ Stocking of fish or shellfish
- ✓ Management or control of aquatic invasive species

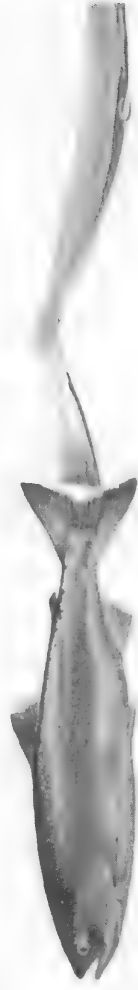


Complimentary Measures

- In areas where there are limited opportunities for measures to offset fisheries productivity losses and where there is limited understanding or data on fisheries populations, complementary measures may be considered in addition to other offsetting measures.
- Complementary measures are investments in **data collection and scientific research** related to maintaining or enhancing the productivity of commercial, recreational or Aboriginal fisheries.
- Complementary measures may comprise up to 10% of the required amount of offsetting; the remaining 90% of the offset amount must consist of habitat enhancement, restoration or creation offsetting measures.

In-kind or Out-of-kind Approach

- “Offsetting measures may be **“in-kind”** where the same kind of habitat and fisheries that are lost are replaced.
 - In this case, the offsetting measures aim to replace the habitat features and functions that have been permanently altered or destroyed by the proposed project through habitat restoration or creation.
- Alternatively, offsetting measures may be **“out-of-kind”** where offset measures target the limiting factors of productivity in a given area rather than replacing exactly what was lost.”





Offsets through Habitat Banking

- Formalized approach under MOU as a “Habitat Banking Arrangement” to undertake targeted “conservation projects” as offsets for future project’s that will result in serious harm to fish.
- A proponent-led Habitat Bank allows offsetting for project’s to take place in advance of a project’s impacts and a proponents request for Authorization or permit under the FA or SAR.
- Offsets are established through habitat creation, enhancement or restoration.
- Habitat credits *may* be drawn upon by proponents to counterbalance residual adverse effects on fish and fish habitat at a later date.
- Allows proponents to plan well in advance of projects – but - acquiring a habitat bank is independent of whether or not the proponent will receive authorization for any future proposed projects.



Principles of Habitat Banking

- Proponent-led Habitat Banks must align with the *Fisheries Productivity Investment Policy: A Proponent's Guide to Offsetting* and therefore, must:
 1. support fisheries management objectives or local restoration priorities;
 2. show benefits that counterbalance the adverse effects on fish and fish habitat;
 3. provide additional benefits to the fishery; and,
 4. generate self-sustaining benefits over the long-term.
- Engagement of Indigenous groups and key stakeholders is required before the establishment of a Habitat Bank.
- An adaptive management approach must be implemented and informed by monitoring of fish habitat indicators and performance targets.
- Where aquatic SAR are present considerations must include Recovery Strategies, Action Plans and Management Plans specific to the species.



Benefits of Habitat Banking

- Enables proponents undertaking multiple development projects to undertake more strategic, larger-scale conservation projects to:
 - address ecosystem function, foster biodiversity, provide opportunities for linking fragmented habitats
 - take advantage of improved planning, scientific expertise and financial resourcing resulting in economies of scale.
- Useful to address the impacts from the construction, operation and long-term maintenance of components of large scale projects.
- Allows the effectiveness of the offsetting measures to be understood and for the habitat to be monitored and proven effective in contributing to the area's productivity in advance of serious harm to fish.
- Single project offsetting undertaken in association with an Authorization can fail and result in significant delay in its contribution to fisheries productivity..

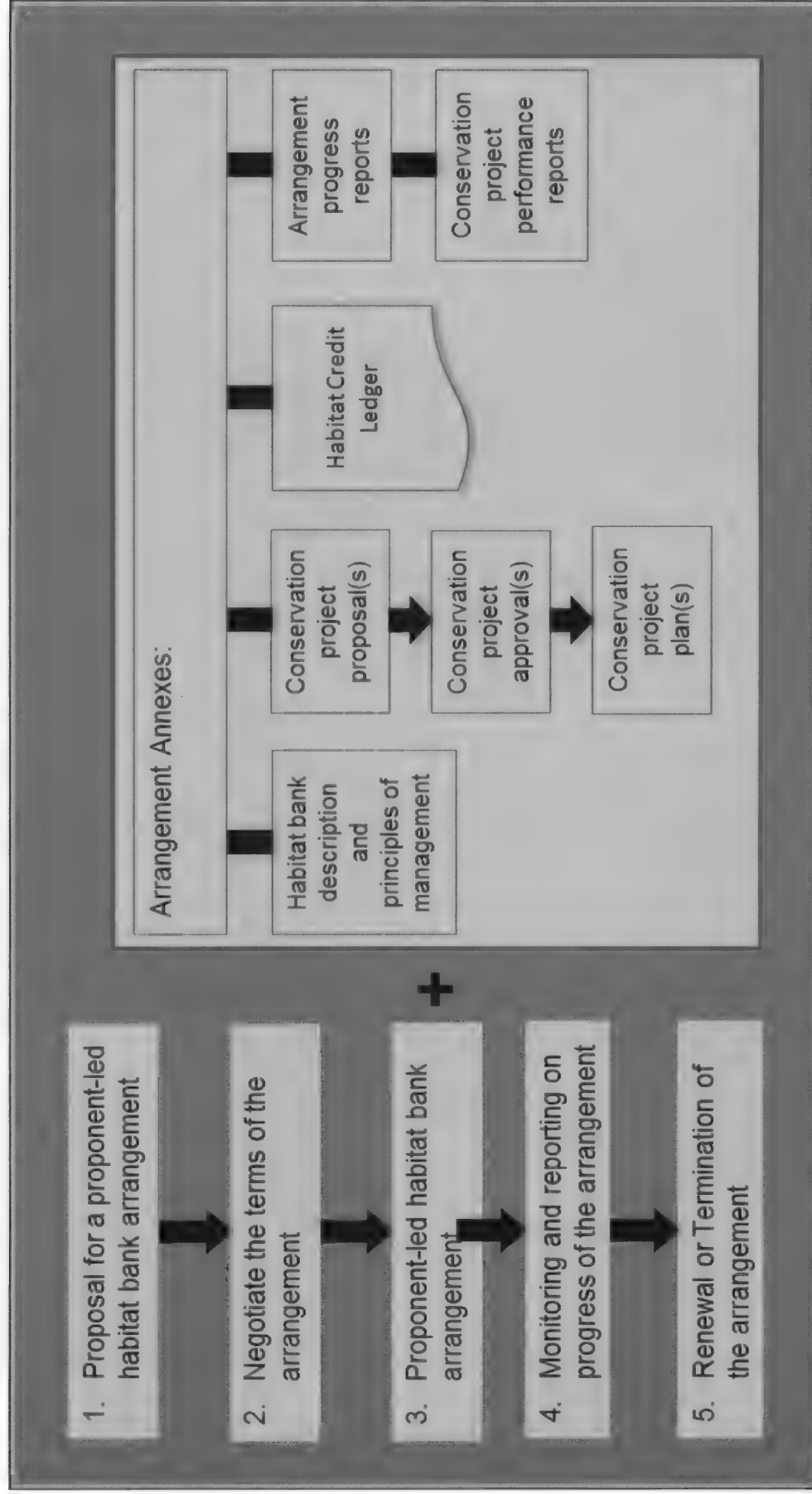


Habitat Banking Arrangements (HBAs)

- A Habitat Banking Arrangement is an MOU, called an “Arrangement” between DFO and a Proponent that forms the basis for the management and administration of the Habitat Bank.
- 3 Phases:
 1. Establishment of the Arrangement terms and conditions
 2. Defining the service area and managing the conservation projects
 3. Applying habitat credits to an Authorization
- The terms and conditions of the Habitat Banking Arrangement are based on a legally-reviewed template, applicable to all proponents, for the time period specified in the Arrangement.



Arrangement Key Steps ST1



Slide 18

ST1

We may need to re-design this slide as it is a copy/paste for draft copy - the picture imports as one item making editing (of colour)
not possible.

DFO-MPO, 7/9/2018

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Components of the HBA

As Habitat Banking is a proponent-led process, the proponent is responsible to:

1. Define the Service Area
2. Identify conservation project(s)
 - Location
 - Define fisheries benefits
3. Develop conservation project plan
4. Establish fish habitat indicators and performance targets
5. Outline habitat credit valuation process and establishment of habitat credit ledger (habitat credit accounting system)
6. Conservation project monitoring and reporting
7. Site ownership or land tenure



Applying Habitat Credits to Authorizations

- Proponents seeking Authorization under the FA may request the use of habitat credits to offset the residual adverse effects on fish and fish habitat from their project(s).
- DFO-FPP determines the appropriateness of habitat credit us based on considerations including:
 - principles set out in the *Fisheries Productivity Investment Policy: A Proponent's Guide to Offsetting*;
 - consideration of the *Fisheries Act* section 6 factors;
 - requirements to protect Aboriginal and Treaty rights
 - other legislative considerations (i.e., EA outcomes, SARA considerations)
- The value of credits is outlined in the conservation project plan, and is based on their proven effectiveness of fisheries productivity gains.
- Once approved for use, DFO-FPP logs the habitat credit transaction in a habitat credit ledger.



Indigenous Consultation

- Indigenous groups are engaged by both the proponent and DFO during the development of any proposed Habitat Banks.
 - VFPA Indigenous Consultation and Engagement process
 - Identify concerns, discuss issues
 - Garner support and involvement
- When contemplating the issuance of an Authorization under Section 35(2) of the *Fisheries Act* or permit under SARA, DFO must undertake consultation with potentially affected Indigenous groups in relation to the development project, including the proponents proposed use of habitat banking credits to meet their offsetting requirements.
 - Template letter
 - Direct contact



Next Steps

- Receive and review feedback from Indigenous Engagement sessions and address any identified concerns/ issues.
 - DFO and VFPA to finalize Annexes for Habitat Banking Arrangement, including the Indigenous Consultation and Engagement Plan
 - DFO and VFPA enter into formal agreement as signatories to the DFO-VFPA Habitat Banking Arrangement
 - VFPA to continue to operate, manage and monitor HB's in accordance with Arrangement
 - DFO to monitor, verify and administer proponent-led Arrangement.
- Future (TBD):
- Indigenous Consultation required when DFO contemplates the issuance of an Authorization requesting use of habitat credits.



Title

Committee

Date

To remove SECRET:

- Click View
- Click Slide Master
- Select text box on (title and other slides) and hit delete
- On the View menu, click Normal to return to editing



Discussion

- Fisheries Act Authorizations
 - Section 6 Factors
- Review Process
- Offsetting
- Habitat Banking
 - Key concepts
 - Benefits
 - Arrangement and components
 - Credits and ledger
- Engagement and Consultation
- Next steps



Fisheries Act Authorizations

- Proponents require an Authorization under the *Fisheries Act* when options to completely avoid serious harm to fish are not possible.
 - Section 35(2): “No person shall carry on any work, undertaking or activity that results in serious harm to fish that are part of a commercial, recreational or Aboriginal fishery (CRA), or to fish that support such a fishery”.
 - Section 2: “The death of fish, or permanent alteration to or destruction of fish habitat”.
 - Authorizations are issued for projects likely to result in a localized effect to fish populations or fish habitat in the vicinity of the project and residual harm to fish remains after avoidance and mitigation measures are applied.

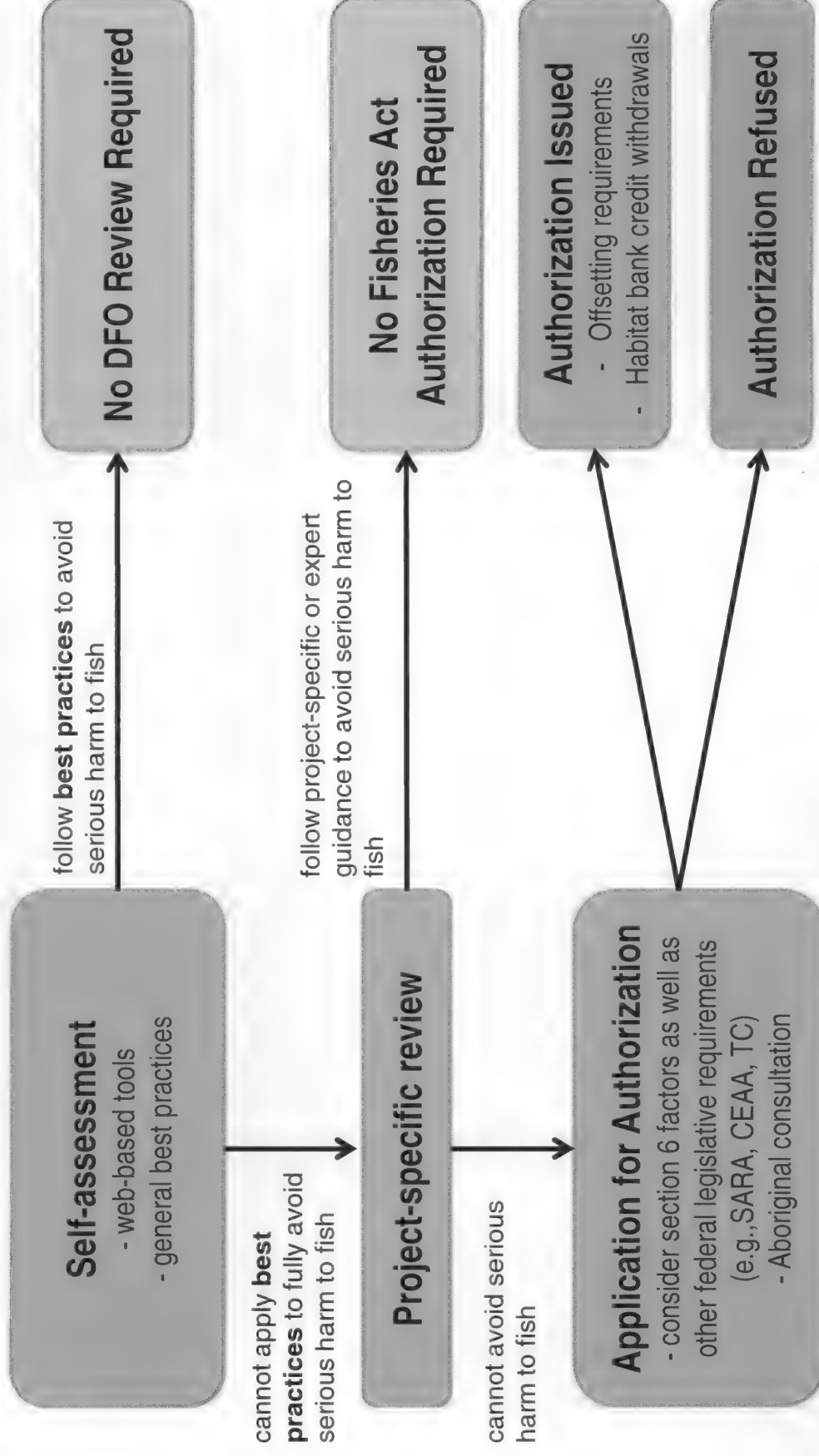


Factors to Consider prior to Authorization

When the Department contemplates the issuance of an FA Authorization, the Minister must take into account the factors listed under Section 6 of the FA:

- The contribution of the relevant fish to the ongoing productivity of CRA fisheries;
- Fisheries Management Objectives;
- Whether there are measures and standards to avoid, mitigate or offset serious harm to fish that area part of a CRA fishery, or fish that support such a fishery; and,
- The public interest, inclusive of all Canadians, and specifically Aboriginal interests through Consultation.

Review Process Diagram





Fisheries and Oceans
Canada

Pêches et Océans
Canada

Offsetting

Offsetting measures counterbalance *serious harm to fish* by maintaining or improving fisheries productivity after all feasible measures to avoid and mitigate impacts have been undertaken.



Guiding Principles:

1. Offsetting measures must support fisheries management objectives and restoration priorities.
2. Benefits from offsetting measures must balance project impacts.
3. Offsetting measures must provide additional benefits to the fishery.
4. Offsetting measure must generate self-sustaining benefits over the long term.

Canada



Fisheries and Oceans
Canada

Pêches et Océans
Canada

Offsetting Measures

Proponent-led Habitat Banks must align with the *Fisheries Productivity Investment Policy: A Proponent's Guide to Offsetting*, November 2013.



Offsetting measures fall under 3 main categories:

1. Habitat Restoration and Enhancement *
 2. Habitat Creation *
 3. Chemical or Biological Manipulations
- Complementary Measures
 - In-kind and out-of-kind approach

* Habitat Banking most suited for 1, 2.

Canada



Habitat Banking – Key Concepts

- Formalized proponent-led approach under MOU as a “Habitat Banking Arrangement” to undertake targeted “conservation projects” as offsetting for future project’s that will result in serious harm to fish.
 - Upon request for FA Authorization or SAR permit, conservation project habitat credits *may* be drawn upon by proponents to counterbalance unavoidable and residual adverse effects on fish and fish habitat.
 - Allows offsetting for project’s to take place well in advance of a project’s impacts.
- Development of a habitat bank is *independent* of whether or not the proponent will receive Authorization for any future proposed projects.
- Engagement of Indigenous groups and key stakeholders is required before the establishment of a Habitat Bank.
- An adaptive management approach must be implemented and informed by monitoring of fish habitat indicators and performance targets.
- Where aquatic SAR are present considerations must include Recovery Strategies, Action Plans and Management Plans specific to the species



Benefits of Habitat Banking

ST3

- Enables proponents undertaking multiple development projects to undertake more strategic, larger-scale conservation projects to:
 - address ecosystem function, foster biodiversity, provide opportunities for linking fragmented habitats
 - take advantage of improved planning, scientific expertise and financial resourcing resulting in economies of scale.
- Useful to address the impacts from the construction, operation and long-term maintenance of components of large scale projects.
- Allows the effectiveness of the offsetting measures to be understood and for the habitat to be monitored and proven effective in contributing to the area's productivity in advance of serious harm to fish.
- Single project offsetting undertaken in association with an Authorization can fail and result in significant delay in its contribution to fisheries productivity.

Slide 9

- ST3 I think a slide on benefits is important; however, this information may be better presented through pictures and with these bullets
as speaking points

DFO-MPO, 7/10/2018

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Habitat Banking Arrangements (HBAs)

- A Habitat Banking Arrangement is an MOU, called an “Arrangement” between DFO and a Proponent that forms the basis for the management and administration of the Habitat Bank.

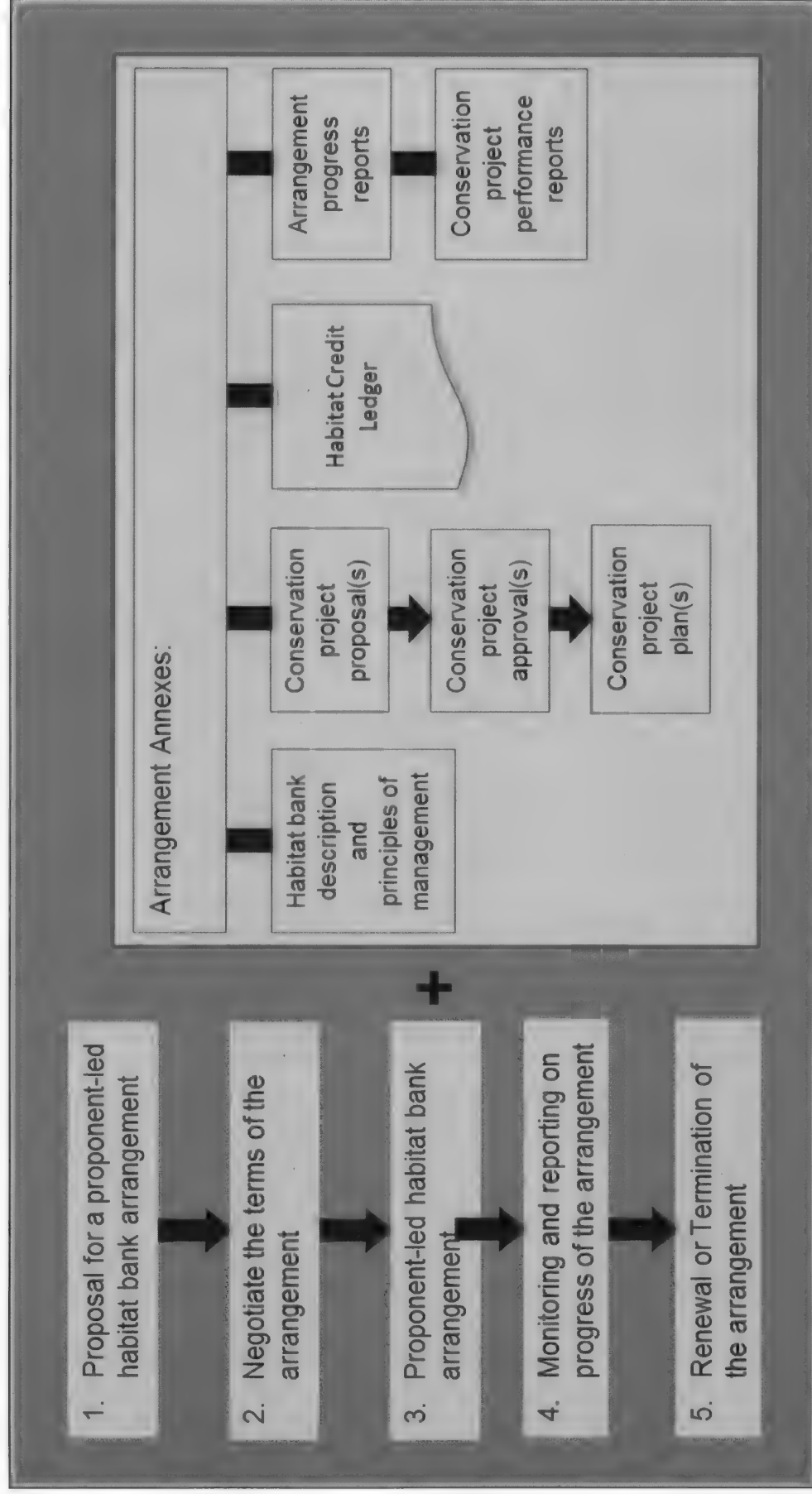


- The terms and conditions of the Habitat Banking Arrangement are based on a legally-reviewed template, applicable to all proponents, for the time period specified in the Arrangement.



ST1

Arrangement Key Steps



Slide 11

ST1

We may need to re-design this slide as it is a copy/paste for draft copy - the picture imports as one item making editing (of colour) not possible.

DFO-MPO, 7/9/2018

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Components of the HBA

ST4

As Habitat Banking is a proponent-led process, the proponent is responsible to:

1. Define the Service Area
2. Identify conservation project(s)
 - Location
 - Define fisheries benefits
3. Develop conservation project plan
4. Establish fish habitat indicators and performance targets
5. Outline habitat credit valuation process and establishment of habitat credit ledger (habitat credit accounting system)
6. Conservation project monitoring and reporting
7. Site ownership or land tenure

Slide 12

ST4

If we choose to keep the information on this slide, a presenting the information in a process diagram may be best

DFO-MPO, 7/10/2018

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Applying Habitat Credits to Authorizations

- Proponents seeking Authorization under the FA may request the use of habitat credits to offset the residual adverse effects on fish and fish habitat from their project(s).
- DFO-FPP determines the appropriateness of habitat credit us based on considerations including:
 - principles set out in the *Fisheries Productivity Investment Policy: A Proponent's Guide to Offsetting*;
 - consideration of the *Fisheries Act* section 6 factors;
 - requirements to protect Aboriginal and Treaty rights
 - other legislative considerations (i.e., EA outcomes, SARA considerations)
- Credit values area outlined in the conservation project plan, and are based on their proven effectiveness of fisheries productivity gains.



Fisheries and Oceans
Canada

Pêches et Océans
Canada

Habitat Ledger

- Once approved for use, DFO-FPP logs the habitat credit transaction in a habitat credit ledger; records are maintained by Proponent and DFO.



Habitat Bank:	Port Metro Vancouver Habitat Enhancement Program
Organization:	Port Metro Vancouver (PMV)
Proponent Contact:	Gord Ruffo (Program Manager, Habitat Enhancement Program, PMV)
DFO Contact:	TBD
Habitat Bank Status:	Active *see below for credit balances
Combined Credit (m2):	16,500

Documentation	Date of Documentation	PATH No. / Document Location	Prepared by	Location of Compensation	Comments	Habitat Type	Planned (m2)	Constructed (m2)	Banked (confirmed functional m2)	Debit (m2)	Total Credit (Area)
MOU: Habitat Banking Agreement between DFO-VFPA	TBC	XX-XXX-XXXX	DFO/ VFPA		MOU discusses the establishment of a habitat compensation bank for credits accumulated from the development of aquatic habitats.						
Proposed Approach for Determining Net Habitat Banking Credits	July 2018	XX-XXX-XXXX	VFPA/ 123 Consultants		Habitat Credit Valuation process proposed for multiple proposed habitat banks						
Habitat Banking Credits for Marsh Creation	August 2018	XX-XXX-XXXX	VFPA	Fake Park, Fake Arm - Fake River	The credits in the PMV habitat bank are registered in the habitat bank. Credits were given for the construction of marsh benches in Fake Park, along the North Arm of the Fake Arm of the Fake River.	tidal freshwater marsh	5,000	4,500	5,000		4,500
						brackish marsh	2,000	2,500	2,000		2,500
						salt marsh		500	500		500
Marine subtidal reef creation	August 2018	XX-XXX-XXXX	456 Consultants	Zero Arm, No River	Project involves the construction of three separate high-value subtidal reef areas off-shore of Zero Arm and south of the 44 Jetty. Expected habitat credits include 9,000m2 of subtidal reef to be added to the bank.	subtidal reef	9,000				9,000
										Total all types:	16,500



Indigenous Engagement and Consultation

ST6

- Indigenous groups are engaged by both the proponent and DFO during the development of any proposed Habitat Banks.
 - VFPA Indigenous Consultation and Engagement process
 - Discuss issues and identify concerns
 - Garner support, feedback and involvement
- When contemplating the issuance of an Authorization under Section 35(2) of the *Fisheries Act* or permit under SARA, DFO must undertake consultation with potentially affected Indigenous groups in relation to the development project, including the proponents proposed use of habitat banking credits to meet their offsetting requirements.
 - Template letter
 - Direct contact

Slide 15

ST6

This slide probably needs some work too.

DFO-MPO, 7/10/2018

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ST5

Next Steps

- Receive and review feedback from Indigenous Engagement sessions and address any identified concerns/ issues.
- DFO and VFPA to finalize Annexes for Habitat Banking Arrangement, including the Indigenous Consultation and Engagement Plan
- DFO and VFPA enter into formal agreement as signatories to the DFO-VFPA Habitat Banking Arrangement
- VFPA to continue to operate, manage and monitor HB's in accordance with Arrangement
- DFO to monitor, verify and administer proponent-led Arrangement.

Future (TBD):

- Indigenous Consultation required when DFO contemplates the issuance of an Authorization requesting use of habitat credits.

Slide 16

ST5 Not sure we need a slide like this since VFPA will likely have a timeline/ process chart available.

We could make this much simpler by just requesting comments to be submitted to either DFO or VFPA.
DFO-MPO, 7/10/2018

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**Pages 593 to / à 598
are duplicates of
sont des duplicatas des
pages 412 to / à 417**

From: Nutton, Byron
To: [REDACTED]
Subject: RE: VFPA Banking Arrangement
Date: 2018-July-11 1:58:00 PM

[REDACTED]

Thanks again for your time and attention on this file.

After our last exchange, below, I did recommend to Cheryl that we issue an extension to March 31, 2019.

[REDACTED] - just back in the office today - and see that a letter extending the current agreement to March 31, 2019 was indeed issued while I was away.

Just wanted to keep you informed, and look forward to continuing to work with you on this file.

Thanks again,

Byron

From: [REDACTED]
Sent: 2018-June-29 7:00 AM
To: Nutton, Byron <Byron.Nutton@dfo-mpo.gc.ca>
Cc: [REDACTED]
[REDACTED]

Subject: RE: VFPA Banking Arrangement

Byron, you have captured our discussion yesterday accurately. Thanks for your consideration. [REDACTED]

[REDACTED]

Treaty, Lands, and Resources Department
Tsleil-Waututh Nation
3075 Takaya Drive
North Vancouver, BC V7H 3A8
Canada

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s.19(1)

From: Nutton, Byron [mailto:Byron.Nutton@dfo-mpo.gc.ca]

Sent: Thursday, June 28, 2018 4:28 PM

To: [REDACTED]

Subject: RE: VFPA Banking Arrangement

[REDACTED]

Thank you for your reply, and thank you for the follow-up phone discussion just now.

As discussed, I understand your strong preference to have this process completed by the end of December in order to better align with other initiatives. VFPA has also clearly expressed their preference to have a renewed agreement in place as soon as practical and have suggested the end of December, and DFO would like to see this completed in that time frame as well. As indicated below, this timeframe is supported by an Indigenous engagement work plan that that DFO and VFPA have been developing over the last several months - the end of November being seen as a realistic timeframe for completing engagement, followed by consideration of any input and a decision on a renewed agreement by the end of December.

However, based on my experience and considering other initiatives that are underway (including Indigenous engagement on both the Roberts Bank Terminal 2 project and the review of the *Fisheries Act*), I am concerned that limiting an extension to the end of December may hamper our ability to address circumstances that may arise. In this regard I am much more comfortable recommending an extension to the end of March 2019.

Based on our discussion I understand that you are not opposed to a March timeframe, provided it is couched in language that relays both your strong preference for December and DFO's intention to proceed with a work plan that sees this process completed by the end of December, with any time beyond that being used to respond to somewhat exigent circumstances rather than simply more time.

Please let me know if I have captured any part of our discussion inaccurately, otherwise I will proceed with recommending an extension to March 31, 2019 as identified above.

Thanks again for your time and consideration.

Regards,

Byron Nutton, RPBio

A/Team Lead | Chef d'équipe Intérimaire

Partnerships, Standards and Guidelines | Partenariats, Normes et lignes directrices

Fisheries Protection Program | Programme de protection des pêches
Fisheries and Oceans Canada | Pêches et Océans Canada
Pacific Region | Région du Pacifique

250-618-4268

From: [REDACTED]
Sent: 2018-June-27 9:57 AM
To: Nutton, Byron <Byron.Nutton@dfo-mpo.gc.ca>
Subject: RE: VFPA Banking Arrangement

Byron, delaying until December is okay with TWN. [REDACTED]

From: Nutton, Byron [mailto:Byron.Nutton@dfo-mpo.gc.ca]
Sent: Thursday, June 21, 2018 2:22 PM
To: [REDACTED]
Subject: VFPA Banking Arrangement

[REDACTED]

As we discussed recently, VFPA has requested an additional extension to their existing Habitat Banking Agreement with DFO.

As you will recall, the original Agreement was set to expire in September 2017 and was extended for an additional year in June 2017 to allow time for the development a new Arrangement. Although DFO and VFPA have made some progress in the last year, the current expiry of September 2018 is fast approaching, and we are just now in a position to begin engagement with TWN and other potentially affect Indigenous groups.

To this end, DFO and VFPA have discussed the steps and schedule for engagement and have concluded that it would be very optimistic to presume we would be able to successfully deliver a robust engagement strategy prior to the current expiry date - we anticipate the end of calendar year being much more realistic. In their request, VFPA has not proposed a term for the extension but to ensure we allow for meaningful engagement opportunities I am considering the end of March being appropriate.

Given our history of engagement to date on this file, I wanted to be sure that TWN is aware of our consideration of this request and provide you with an opportunity to provide your comments or concerns prior to my making a recommendation to my Regional Director regarding this request.

I look forward to hearing from you.

Regards,

Byron Nutton, RPBio

A/Team Lead | Chef d'équipe Intérimaire
Partnerships, Standards and Guidelines | Partenariats, Normes et lignes
directrices
Fisheries Protection Program | Programme de protection des pêches
Fisheries and Oceans Canada | Pêches et Océans Canada
Pacific Region | Région du Pacifique

250-618-4268

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From: [Nutton, Byron](#)
To: [Melnick, Loriga](#)
Subject: FW: June 26 DFO-VFPA Meeting RE Habitat Bank Arrangement and Indigenous Engagement - Follow Up Items
Date: 2018-July-13 1:21:00 PM
Attachments: [image001.png](#)
[2018-07-13-03-600-VFPA and DFO DRAFT Information Package-Rev0.pdf](#)
[draft VFPA IG Engagement deck for your review and feedback.msg](#)
[2018-05-14-VFPA-DFO Indigenous Engmt Plan-FINAL-clean-Rev1.pdf](#)
Importance: High

As discussed, please see attached:

- PDF (2018-07...) of draft material from the port
- e-mail with original (long) version of draft content from us, Bruce's comments back to Suzanne, and subsequent revised draft (short) version.
- PDF (2019-05...) of previously finalized work plan

From: Caillin Katnich [mailto:Caillin.Katnich@portvancouver.com]
Sent: 2018-July-13 11:48 AM
To: Nutton, Byron <Byron.Nutton@dfo-mpo.gc.ca>
Cc: Thorpe, Suzanne <Suzanne.Thorpe@dfo-mpo.gc.ca>; Olson, Charlotte <Charlotte.Olson@portvancouver.com>; Ruffo, Gord <Gord.Ruffo@portvancouver.com>
Subject: RE: June 26 DFO-VFPA Meeting RE Habitat Bank Arrangement and Indigenous Engagement - Follow Up Items
Importance: High

Hi Byron,

As a follow up to Charlotte's email below, please find attached a draft information package for Indigenous engagement regarding a new Habitat Bank Arrangement, for your review and comment. In the attached you will find the following draft documents:

- Cover letter to be sent to each Indigenous group
- Attachment 1
 - Overview of VFPA's Habitat Enhancement Program (HEP)
 - VFPA jurisdiction map
 - HEP overview map
- Attachment 2
 - Draft overview of Aboriginal engagement on habitat projects delivered for inclusion in VFPA's habitat bank
- Attachment 3
 - HEP project example: New Brighton Park Shoreline Habitat Restoration Project

Please note that, upon finalization of this content, we're planning to design this document using the style used on attachment 3, the New Brighton Park Shoreline Habitat Restoration Project overview.

If you and/or Suzanne have any questions as you review, please feel free to let Charlotte or me know.

Regards,

Caillin

Caillin Katnich

Communications Advisor
Habitat Enhancement Program



Vancouver Fraser Port Authority

100 The Pointe, 999 Canada Place
Vancouver, B.C. Canada V6C 3T4

P: 778.988.6180
portvancouver.com

From: Olson, Charlotte

Sent: July-12-18 11:29 AM

To: Nutton, Byron <Byron.Nutton@dfo-mpo.gc.ca>

Cc: Thorpe, Suzanne <Suzanne.Thorpe@dfo-mpo.gc.ca>; Caillin Katnich
<Caillin.Katnich@portvancouver.com>

Subject: RE: June 26 DFO-VFPA Meeting RE Habitat Bank Arrangement and Indigenous Engagement -
Follow Up Items

Hi Byron

Just a quick note – we are still on track to provide the VFPA drafted engagement content to DFO by
EOD tomorrow, July 13th.

The content will be sent in draft for your review/comment next week (per our plan we discussed) –
and my colleague copied here, Caillin Katnich – will be emailing the draft content to you.

At this time, we'd also like to confirm the prep. meeting Wed August 22nd (10am-12noon) – if that
works for you Byron, can you come to Vancouver office or?

Cheers,

Charlotte Olson P.Geo., PMP

Manager, Infrastructure Habitat Development

CELL: 604.349.4111

From: Olson, Charlotte

Sent: Friday, July 06, 2018 2:06 PM

To: 'Nutton, Byron' <Byron.Nutton@dfo-mpo.gc.ca>; Thorpe, Suzanne <Suzanne.Thorpe@dfo-
mpo.gc.ca>

Cc: Ruffo, Gord <Gord.Ruffo@portvancouver.com>; Scoble, Jemma

<Jemma.Scoble@portvancouver.com>; Bryce, James <James.Bryce@portvancouver.com>

Subject: RE: June 26 DFO-VFPA Meeting RE Habitat Bank Arrangement and Indigenous Engagement - Follow Up Items

Importance: High

Hi Byron and Suzanne

To keep track of actions and what we discussed at our June 26 meeting (10-11am) at VFPA:

1. I've prepared a short summary of actions (first attachment). Please don't hesitate to respond if I've missed something, or captured something in error.
2. Also re-attached is the 1-page PDF of the materials we agreed to assemble (referred to in the actions list).
3. Lastly, also Byron – as requested, attached is a draft (dated July 6/18) of the proposed draft Annex's (Annex's F and G) that VFPA has prepared (to attach to draft Arrangement) – related to Indigenous engagement/consultation.
 - Annex F – pertains to DFO's consultation (using the text provided by you)
 - Annex G – pertains to VFPA's consultation (same content you have previously seen)
 - You will see in the next draft of the Arrangement (that VFPA is still working on) – the context provided for each of the proposed Annex's (per DFO's request to include)

Later next week, I will send out Calendar invites for our August meeting (Aug 21-23 TBC) – thanks for info below Byron.

Cheers

Charlotte Olson P.Geo., PMP
Manager, Infrastructure Habitat Development

CELL: 604.349.4111

From: Nutton, Byron [<mailto:Byron.Nutton@dfo-mpo.gc.ca>]

Sent: Wednesday, June 27, 2018 12:56 PM

To: Olson, Charlotte <Charlotte.Olson@portvancouver.com>

Cc: Thorpe, Suzanne <Suzanne.Thorpe@dfo-mpo.gc.ca>

Subject: RE: June 26 DFO-VFPA Meeting RE Habitat Bank Arrangement and Indigenous Engagement

Hi Charlotte,

In follow-up to our meeting, with respect to upcoming meeting dates...

1. Suzanne and I have pencilled-in Aug 21-23 for the pre-engagement prep meeting and are waiting for you to propose a specific date/time.
2. After checking my calendar, unfortunately I am not available the week of September 17-21,

but Suzanne and I have confirmed our availability for Tues-Thurs the weeks of Sep 10th and 24th, and Tues-Thurs the weeks of Oct 1st, 9th and 16th

3. I have confirmed with Tola that at this time DFO does not have any scheduled sessions for the next phase of engagement on the Fisheries Act review, but she suspects that things will be starting to happen around end of September or early October – once we have proposed dates for engagement on banking I will let her know
4. Loriena will not be available to assist/attend at that time, but I will work with Tola to identify Indigenous engagement support as needed

Regards,

Byron

From: Olson, Charlotte [<mailto:Charlotte.Olson@portvancouver.com>]

Sent: 2018-June-26 4:20 PM

To: Nutton, Byron <Byron.Nutton@dfo-mpo.gc.ca>; Thorpe, Suzanne <Suzanne.Thorpe@dfo-mpo.gc.ca>

Cc: Scoble, Jemma <Jemma.Scoble@portvancouver.com>; Ruffo, Gord <Gord.Ruffo@portvancouver.com>

Subject: June 26 DFO-VFPA Meeting RE Habitat Bank Arrangement and Indigenous Engagement

Hi Byron and Suzanne, thanks again for meeting at VFPA today from 10-11am to discuss our next steps on Indigenous engagement and the status of the VFPA-DFO habitat bank arrangement.

- Attached is the document we handed out at the meeting – which summarizes our proposed info package content and approach to prepare for August 2018 distribution, so you have a digital copy.

As discussed, we will work toward our July 13 date for having our content ready, for review the following week.

Also – Byron, by early July, we will endeavor to provide you with a copy of the draft Indigenous consultation Annex (to our habitat banking arrangement), that we have been working on - as you requested.

Lastly – Suzanne, please see the below link and second PDF attachment to this email for an overview of our completed New Brighton Park Shoreline Habitat Restoration Project

<https://www.portvancouver.com/development-and-permits/development/new-brighton-park-shoreline-habitat-restoration-project/>

Cheers!

Charlotte Olson P.Geo., PMP
Manager, Infrastructure Habitat Development



Vancouver Fraser Port Authority
100 The Pointe, 999 Canada Place
Vancouver, B.C. Canada V6C 3T4

P: 604.665.9590 | CELL: 604.349.4111
portvancouver.com

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Vancouver Fraser Port Authority
100 The Pointe, 999 Canada Place
Vancouver, B.C. Canada V6C 3T4
portvancouver.com

August 1, 2018

[Name(s)]
[Title(s)/Aboriginal group]
[Address]
[Address]
[City/Town], B.C. [Postal code]

Via email: [email address(es)]

Dear [Name],

The Vancouver Fraser Port Authority (VFPA) currently has a formal agreement with Fisheries and Oceans Canada (DFO) for habitat banking that enables VFPA to create habitat ahead of infrastructure development. This agreement was established in 2012 and will expire in early 2019. It is the intent of VFPA and DFO to enter into a new agreement for habitat banking.

Prior to entering into this new agreement, VFPA would like to share information with Aboriginal groups on the consultation process used for the delivery of future habitat projects that are proposed for VFPA's habitat bank. This is also an opportunity for VFPA to obtain [insert name of group]'s input on this process and to address any questions related to the habitat bank. To facilitate this engagement, VFPA is providing the attached information that describes the following:

- VFPA's Habitat Enhancement Program, which manages the habitat bank
- The Aboriginal engagement process used for the delivery of proposed habitat projects that would be included in the habitat bank
- A recent habitat project example (New Brighton Park Shoreline Habitat Restoration Project) that was constructed for inclusion in VFPA's habitat bank
- An overview of offsetting with habitat banks

To further support the sharing of information and feedback, we are proposing to hold scheduled information sessions where the material provided in these information packages would be presented and representatives from VFPA and DFO would be available to answer specific questions. These information sessions are tentatively scheduled for:

- September 11th (Lower Mainland)

- October 11rd (Vancouver Island)

Invitations to these information sessions will be forwarded in the near future and will provide venue locations and time of sessions.

Input from Aboriginal groups into the consultation process used for the delivery of proposed habitat projects for VFPA's habitat bank is important to VFPA and, as such, VFPA will be seeking feedback up to November 2, 2018.

All comments and information received through the information sessions or through other correspondence will be considered, documented and responded to as part of this process. A summary report of this input will also be prepared by VFPA and submitted to DFO. This report will also be shared with Aboriginal groups.

If you have any questions, comments or concerns regarding the information package provided herein, please contact Jemma Scoble at (778) 822-7240 or jemma.scoble@portvancouver.com.

Yours truly,

VANCOUVER FRASER PORT AUTHORITY



Charlotte Olson, P.Geo., PMP
Manager, Infrastructure Habitat Development
Vancouver Fraser Port Authority's Habitat Enhancement Program

Attached (4): Attachment 1: Overview of VFPA's Habitat Enhancement Program
Attachment 2: Overview of Aboriginal Engagement on Habitat
Projects Delivered for Inclusion in VFPA's Habitat
Bank
Attachment 3: Project Example: New Brighton Park Shoreline
Habitat Restoration Project
Attachment 4: Overview of Offsetting with Habitat Banks [DFO to
provide]



ATTACHMENT 1:

Overview of VFPA's Habitat Enhancement Program

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Overview of VFPA's Habitat Enhancement Program

About the Habitat Enhancement Program

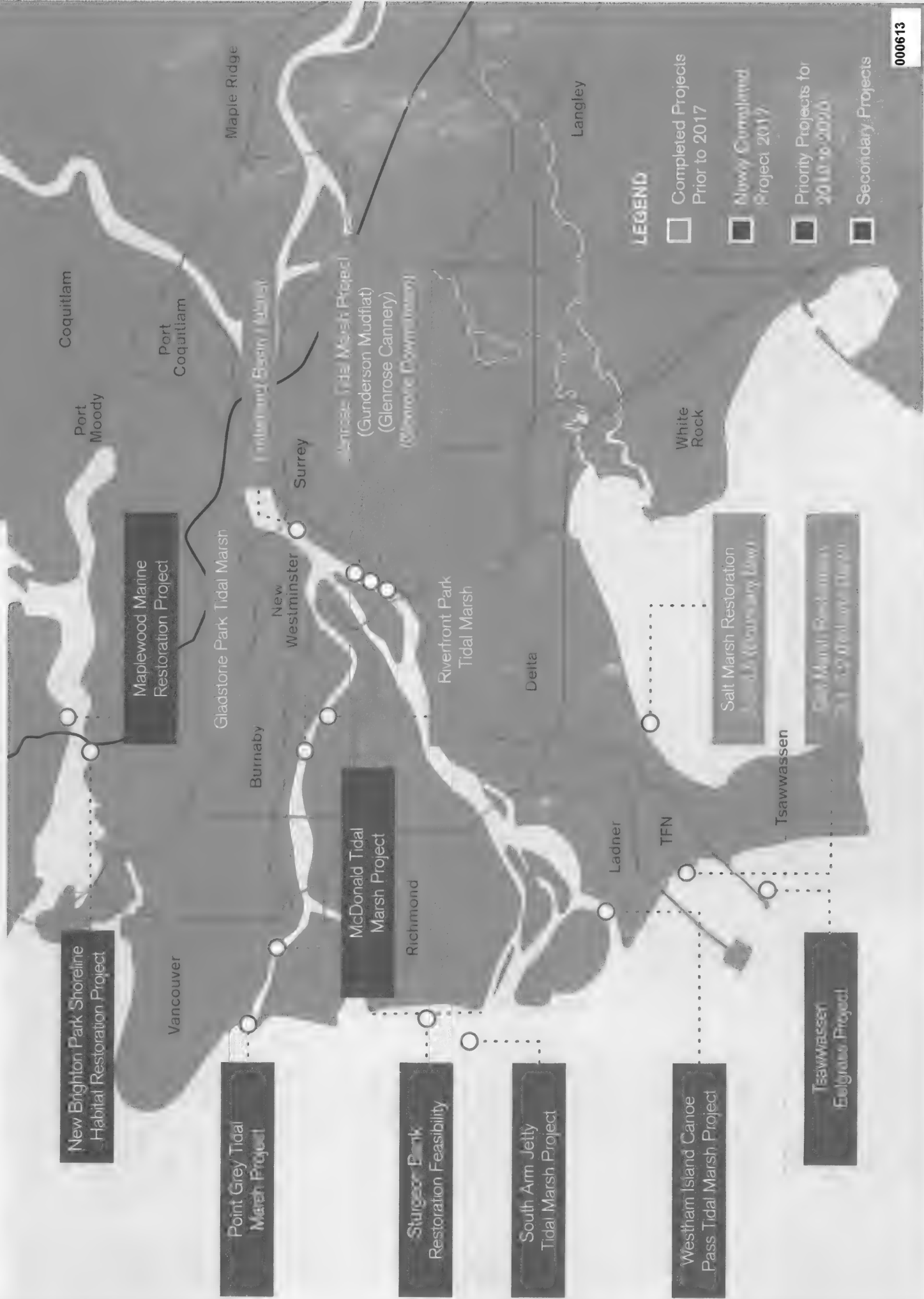
The Habitat Enhancement Program (HEP) was developed by the Vancouver Fraser Port Authority as a part of a broader strategy around gateway growth, acknowledging that habitat sites may be required to offset effects from port infrastructure development. HEP looks to balance infrastructure development opportunities with a healthy environment.

Enhancing fish and wildlife habitat supports the port's approach to sustainability. Specifically, HEP implements well-planned strategies to manage habitat conservation, restoration and habitat enhancement. HEP creates and enhances fish and wildlife habitat for habitat banking purposes, use as offsetting for port infrastructure development, or a combination of both.

The port authority started enhancing habitat in the 1990s. In the past five years, 13 habitat sites that would cover an area of approximately 10 hectares have been created or enhanced. Recent examples included the New Brighton Park Shoreline Habitat Enhancement Project in Vancouver and the Glenrose Tidal Marsh Project in Delta. HEP has also completed feasibility work for over 100 hectares of potential habitat enhancement.

HEP manages VFPA's habitat bank, which was established through a formal agreement with Fisheries and Oceans Canada (DFO). This agreement is set to expire in early 2019 and DFO and VFPA are working to enter into a new agreement for habitat banking.

HABITAT ENHANCEMENT PROGRAM OVERVIEW





ATTACHMENT 2:

**Overview of Aboriginal Engagement on Habitat Projects
Delivered for Inclusion in VFPA's Habitat Bank**

No information has been removed or severed from this page

Overview of Aboriginal Engagement on Habitat Projects Delivered for Inclusion in VFPA's Habitat Bank

Aboriginal consultation and engagement

The Vancouver Fraser Port Authority (VFPA) manages lands and waters that intersect the asserted and established traditional territories and treaty lands of several Coast Salish First Nations. VFPA recognizes the history and contemporary interests of Aboriginal Peoples and works to establish and maintain productive relationships through Aboriginal consultation, regular communication, and a desire to engage in mutually beneficial opportunities to enhance the Asia-Pacific Gateway.

Over the past several years, there has been an evolving awareness and recognition of the critical importance of appropriately and effectively consulting and engaging the various Aboriginal communities within the port authority's area of jurisdiction.

VFPA recognizes and respects that local Aboriginal communities and their leadership want meaningful and ongoing input into the planning, operation, and expansion of port facilities and related transportation infrastructure. Accordingly, the port authority is committed to continued and active engagement with Aboriginal groups who have interests that may potentially be affected by port development.

For the delivery of habitat enhancement projects that are proposed for inclusion in VFPA's habitat bank, consultation and engagement aims to identify and address project-related impacts, to design and implement appropriate mitigation measures, and to explore opportunities for Aboriginal involvement such as participation in field studies and/or employment, training and contracting.

As appropriate, VFPA will also consult Aboriginal groups on individual habitat projects. The project-specific consultation process is outlined in the following pages.

Where relevant, the VFPA's Habitat Enhancement Program (HEP) also undertakes consultation in accordance with the requirements of regulatory processes such as the VFPA Project Environmental Review (PER) process. Regulatory agencies may also undertake consultation as part of their process in reviewing habitat enhancement projects.

Overview of Aboriginal Engagement on Habitat Projects Delivered for Inclusion in VFPA's Habitat Bank

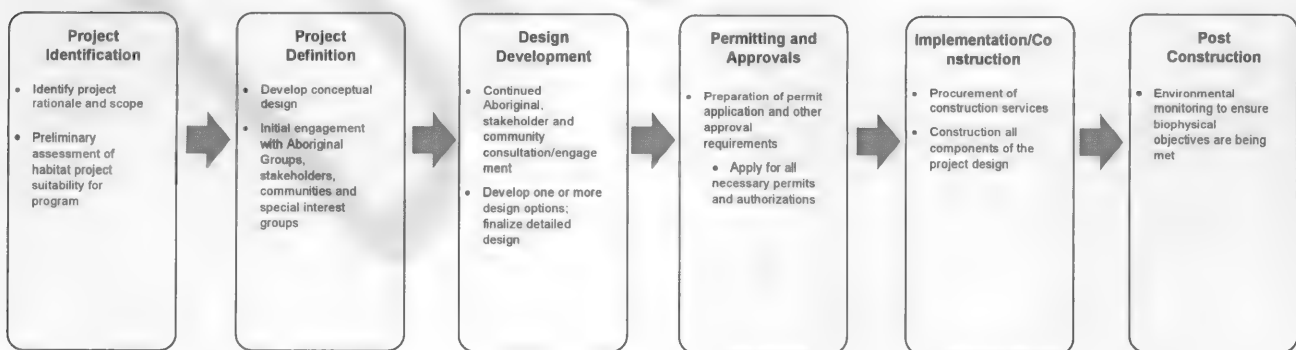
Project development process

The development of habitat enhancement projects is achieved through six basic project management phases that are used to guide and control the project from start to finish.

Starting with the identification of a potential project, this process provides for the structured development and advancement of all required components required for project delivery.

- Phase 1 (**Project Identification**): The "idea" or the vision of what could be achieved.
- Phase 2 (**Project Definition**): What are the project objectives? Constraints?
- Phase 3 (**Design Development**): How will the project objectives be achieved?
- Phase 4 (**Permitting and Approvals**): Obtaining formal permission to perform the work.
- Phase 5 (**Implementation/Construction**): Construction of the habitat enhancement project.
- Phase 6 (**Post Construction**): Ensuring long-term success of the habitat enhancement project.

The illustration below depicts these six key project management phases and provides the key tasks associated with each.



Overview of Aboriginal Engagement on Habitat Projects Delivered for Inclusion in VFPA's Habitat Bank

Phase 1 - Project Identification



The identification of potential habitat enhancement projects is a critical component of the project delivery process. Consideration must be made for habitat need, habitat productivity, feasibility, cost, land tenure, DFO confirmation and Aboriginal considerations.

Aboriginal Consultation and Engagement

- *HEP seeks input from Aboriginal groups on identification of potential habitat enhancement sites*
- *HEP seeks input from Aboriginal groups on habitat enhancement projects identified by others*
- *Aboriginal groups share available traditional knowledge, information and studies*

Overview of Aboriginal Engagement on Habitat Projects Delivered for Inclusion in VFPA's Habitat Bank

Phase 2 - Project Definition



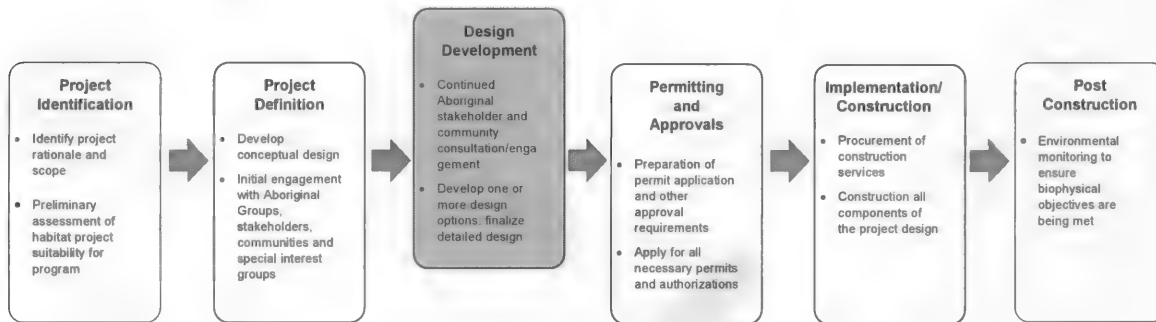
The development of conceptual designs is key to defining what a habitat project could include. Using these concept designs, initial engagement and consultation on specific project features can start.

Aboriginal Consultation and Engagement

- *HEP consults Aboriginal groups on preferred engagement activities for project (e.g. Aboriginal Technical Design Committee)*
- *HEP consults Aboriginal groups on project concept*
- *HEP identifies potential habitat values (i.e. credit estimates) that could be created and engages with interested Aboriginal Groups*
- *Aboriginal groups share Traditional Knowledge with HEP*
- *HEP identifies opportunity for involving Aboriginal groups in field studies and assessments*
- *HEP starts planning for Aboriginal involvement throughout project (e.g. contracting, employment and training opportunities)*

Overview of Aboriginal Engagement on Habitat Projects Delivered for Inclusion in VFPA's Habitat Bank

Phase 3 - Design Development



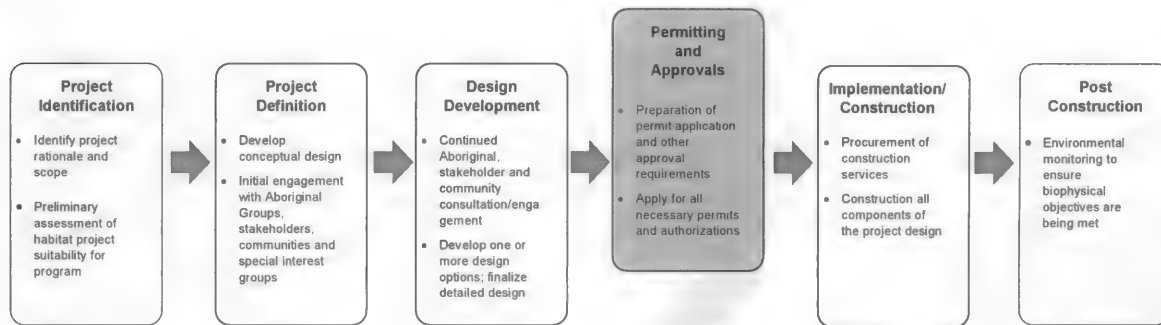
In the design phase, one or more designs are developed and evaluated. Through an iterative design process, a final design is selected and is refined to include all details necessary for construction.

Aboriginal Consultation and Engagement

- *HEP consults Aboriginal groups on the design options*
- *HEP considers Aboriginal feedback and refines design of project, where appropriate (including selection of plant species)*
- *Where required, HEP undertakes further consultation with Aboriginal groups on the design*
- *HEP finalizes the design*
- *HEP shares final design with Aboriginal groups*
- *HEP confirms habitat values (i.e. credits) and consults with Aboriginal groups*
- *HEP obtains DFO confirmation of appropriateness of habitat project for HEP*
- *HEP plans for continued Aboriginal involvement in subsequent phases*

Overview of Aboriginal Engagement on Habitat Projects Delivered for Inclusion in VFPA's Habitat Bank

Phase 4 - Permitting and Approvals



Permits and approvals that are required must be addressed on a project-by-project basis as regulatory requirements and land ownership can vary significantly.

Aboriginal Consultation and Engagement

- *HEP engages Aboriginal groups in relation to permits and approvals*
- *HEP develops a summary of permits and approvals required and shares with Aboriginal groups*
- *HEP seeks Aboriginal input and support on permit applications*
- *HEP notifies Aboriginal groups of submission of permit applications*
- *Regulators and permitting authorities may undertake Aboriginal consultation*
- *HEP plans for continued Aboriginal involvement in subsequent phases*

Overview of Aboriginal Engagement on Habitat Projects Delivered for Inclusion in VFPA's Habitat Bank

Phase 5 -Implementation/Construction



The habitat enhancement project truly takes shape during the Implementation/Construction Phase.

Aboriginal Consultation and Engagement

- *HEP identifies approach to procurement and determines opportunities for Aboriginal involvement/benefits*
- *HEP monitors conditions of approval/permits and any commitments to Aboriginal groups*
- *HEP continues to keep Aboriginal groups updated on progress of construction*
- *HEP plans for continued Aboriginal involvement in Post Construction Phase*

Overview of Aboriginal Engagement on Habitat Projects Delivered for Inclusion in VFPA's Habitat Bank

Phase 6- Post Construction



Aboriginal Consultation and Engagement

- *HEP shares Post Construction Monitoring Plan with Aboriginal groups*
- *Potential contracting opportunities for Aboriginal groups (e.g. maintenance, monitoring)*



ATTACHMENT 3:

**Project Example: New Brighton Park Shoreline Habitat
Restoration Project**

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Habitat Enhancement Program

New Brighton Park Shoreline
Habitat Restoration Project

New Brighton Park Shoreline Habitat Restoration Project

Description, Location and Size

The Vancouver Fraser Port Authority and the Vancouver Board of Parks and Recreation, along with Musqueam, Squamish and Tsleil-Waututh Nations, worked together to restore habitat in New Brighton Park. The New Brighton Park Shoreline Habitat Restoration Project was successfully completed in summer 2017, achieving the goals of restoring fish and wildlife habitat in Burrard Inlet and increasing public access to nature.

This project is situated within New Brighton Park, along the south side of Burrard Inlet, west of the Ironworkers Memorial Bridge, in Vancouver, B.C. It has resulted in the restoration and enhancement of approximately two hectares of intertidal, subtidal, instream and riparian habitat. An extensive planting program was completed at the site, including installation of approximately 25,000 salt marsh plugs, 200 native trees and 4,000 coastal shrubs.

This project presented a significant opportunity to restore coastal wetland habitat on the south shore of Burrard Inlet. Juvenile fish from the Indian and Seymour rivers have been known to experience high mortality as they migrate through Burrard Inlet. A restored salt marsh provides productive habitat for juvenile fish and wildlife, including shorebirds, songbirds and waterfowl.



Pre-construction (September 2016)



Post-construction (May 2018)



Habitat Enhancement Program

New Brighton Park Shoreline
Habitat Restoration Project

Rationale

The site was selected based on its potential to benefit a broad range of fish and wildlife species and to increase the overall ecological function of the area. This project has restored and enhanced a historically filled foreshore and upland area by providing high-value habitat for fish, birds and other wildlife.



Juvenile salmon using the created wetland during the second spring season after connection to Burrard Inlet (May 2018)

Aboriginal Collaboration

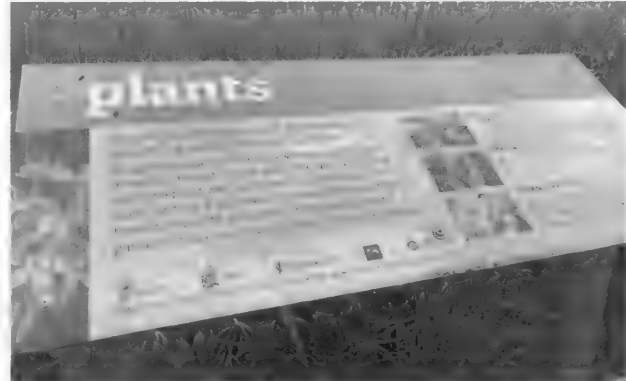
From the early stages, this project was developed in collaboration with the Musqueam, Squamish and Tsleil-Waututh Nations.

At the request of the Musqueam, Squamish and Tsleil-Waututh Nations, a separate Aboriginal Technical Committee was formed and three design workshops were held. Economic and employment opportunities were also created through construction delivery.

The involvement of the Musqueam, Squamish and Tsleil-Waututh Nations throughout the various stages of the project – design, consultation and construction – was a key component of project delivery.

For Further Information

For further information about the Habitat Enhancement Program, please visit portvancouver.com/habitatenhancement or email habitat.enhancement@portvancouver.com.



Park signage that was developed in collaboration with Aboriginal groups was installed around the constructed wetland (May 2018)

Status and Next Steps

Project construction was completed in summer 2017. Juvenile chum, coho and Chinook salmon have been observed using the tidal wetland as a stopover on their way through Burrard Inlet every spring since project completion.

As is the case with all Habitat Enhancement Program projects, annual monitoring is completed by biologists and coastal engineers to ensure the wetland habitat meets its biophysical objectives. Protective fencing is anticipated to remain in place for the first few growing seasons to deter Canada geese from feeding on the salt marsh plantings, and to allow the native vegetation to successfully establish within the wetland.



Looking northeast, with the constructed tidal wetland in the foreground (May 2018)

Document Released Under the Access to Information Act / Document divulgué en vertu de la Loi sur l'accès à l'information

From: Thorpe, Suzanne
To: Olson, Charlotte
Cc: Caillin Katnich; Nutton, Byron
Subject: RE: June 26 DFO-VFPA Meeting RE Habitat Bank Arrangement and Indigenous Engagement - Follow Up Items
Date: 2018-July-16 11:18:55 AM
Attachments: image001.png

Charlotte;

FYI, I am also confirmed for August 22nd. You should receive materials from DFO shortly.

Suzanne

From: Olson, Charlotte [mailto:Charlotte.Olson@portvancouver.com]
Sent: 2018-July-12 11:29 AM
To: Nutton, Byron
Cc: Thorpe, Suzanne; Caillin Katnich
Subject: RE: June 26 DFO-VFPA Meeting RE Habitat Bank Arrangement and Indigenous Engagement - Follow Up Items

Hi Byron

Just a quick note – we are still on track to provide the VFPA drafted engagement content to DFO by EOD tomorrow, July 13th.

The content will be sent in draft for your review/comment next week (per our plan we discussed) – **and my colleague copied here, Caillin Katnich – will be emailing the draft content to you.**

At this time, we'd also like to confirm the prep. meeting Wed August 22nd (10am-12noon) – if that works for you Byron, can you come to Vancouver office or?

Cheers,

Charlotte Olson P.Geo., PMP
Manager, Infrastructure Habitat Development
CELL: 604.349.4111

From: Olson, Charlotte
Sent: Friday, July 06, 2018 2:06 PM
To: 'Nutton, Byron' <Byron.Nutton@dfo-mpo.gc.ca>; Thorpe, Suzanne <Suzanne.Thorpe@dfo-mpo.gc.ca>
Cc: Ruffo, Gord <Gord.Ruffo@portvancouver.com>; Scoble, Jemma <Jemma.Scoble@portvancouver.com>; Bryce, James <James.Bryce@portvancouver.com>
Subject: RE: June 26 DFO-VFPA Meeting RE Habitat Bank Arrangement and Indigenous Engagement - Follow Up Items
Importance: High

Hi Byron and Suzanne

To keep track of actions and what we discussed at our June 26 meeting (10-11am) at VFPA:

1. I've prepared a short summary of actions (first attachment). Please don't hesitate to respond if I've missed something, or captured something in error.
2. Also re-attached is the 1-page PDF of the materials we agreed to assemble (referred to in the actions list).
3. Lastly, also Byron – as requested, attached is a draft (dated July 6/18) of the proposed draft Annex's (Annex's F and G) that VFPA has prepared (to attach to draft Arrangement) – related to Indigenous engagement/consultation.
 - Annex F – pertains to DFO's consultation (using the text provided by you)
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 - You will see in the next draft of the Arrangement (that VFPA is still working on) – the context provided for each of the proposed Annex's (per DFO's request to include)

Later next week, I will send out Calendar invites for our August meeting (Aug 21-23 TBC) – thanks for info below Byron.

Cheers

Charlotte Olson P.Geo., PMP
Manager, Infrastructure Habitat Development
CELL: 604.349.4111

From: Nutton, Byron [<mailto:Byron.Nutton@dfo-mpo.gc.ca>]
Sent: Wednesday, June 27, 2018 12:56 PM
To: Olson, Charlotte <Charlotte.Olson@portvancouver.com>
Cc: Thorpe, Suzanne <Suzanne.Thorpe@dfo-mpo.gc.ca>
Subject: RE: June 26 DFO-VFPA Meeting RE Habitat Bank Arrangement and Indigenous Engagement

Hi Charlotte,

In follow-up to our meeting, with respect to upcoming meeting dates...

1. Suzanne and I have pencilled-in Aug 21-23 for the pre-engagement prep meeting and are waiting for you to propose a specific date/time.
2. After checking my calendar, unfortunately I am not available the week of September 17-21, but Suzanne and I have confirmed our availability for Tues-Thurs the weeks of Sep 10th and 24th, and Tues-Thurs the weeks of Oct 1st, 9th and 16th
3. I have confirmed with Tola that at this time DFO does not have any scheduled sessions for the next phase of engagement on the Fisheries Act review, but she suspects that things will be starting to happen around end of September or early October – once we have proposed dates for engagement on banking I will let her know
4. Lorigena will not be available to assist/attend at that time, but I will work with Tola to identify

Indigenous engagement support as needed

Regards,

Byron

From: Olson, Charlotte [mailto:Charlotte.Olson@portvancouver.com]

Sent: 2018-June-26 4:20 PM

To: Nutton, Byron <Byron.Nutton@dfo-mpo.gc.ca>; Thorpe, Suzanne <Suzanne.Thorpe@dfo-mpo.gc.ca>

Cc: Scoble, Jemma <Jemma.Scoble@portvancouver.com>; Ruffo, Gord <Gord.Ruffo@portvancouver.com>

Subject: June 26 DFO-VFPA Meeting RE Habitat Bank Arrangement and Indigenous Engagement

Hi Byron and Suzanne, thanks again for meeting at VFPA today from 10-11am to discuss our next steps on Indigenous engagement and the status of the VFPA-DFO habitat bank arrangement.

- Attached is the document we handed out at the meeting – which summarizes our proposed info package content and approach to prepare for August 2018 distribution, so you have a digital copy.

As discussed, we will work toward our July 13 date for having our content ready, for review the following week.

Also – Byron, by early July, we will endeavor to provide you with a copy of the draft Indigenous consultation Annex (to our habitat banking arrangement), that we have been working on - as you requested.

Lastly – Suzanne, please see the below link and second PDF attachment to this email for an overview of our completed New Brighton Park Shoreline Habitat Restoration Project
<https://www.portvancouver.com/development-and-permits/development/new-brighton-park-shoreline-habitat-restoration-project/>

Cheers!

Charlotte Olson P.Geo., PMP
Manager, Infrastructure Habitat Development



Vancouver Fraser Port Authority
100 The Pointe, 999 Canada Place
Vancouver, B.C. Canada V6C 3T4

P: 604.665.9590 | CELL: 604.349.4111
portvancouver.com

From: Thorpe, Suzanne
To: Nutton, Byron
Subject: FW: June 26 DFO-VFPA Meeting RE Habitat Bank Arrangement and Indigenous Engagement - Follow Up Items
Date: 2018-July-16 1:29:10 PM
Attachments: image001.png
2018-07-13-03-600-VFPA and DFO DRAFT Information Package-Rev0.pdf
Importance: High

Hi Byron;

I have gone through the materials provided by VFPA. Other than a couple minor items, I think the Port's materials for distribution are generally fine as is.

Comments:

- I would indicate in the cover letter that process for entering into a new arrangement is jointly-managed between VFPA-DFO, particularly since DFO intends to use the information to show engagement as part of the federal process on a spectrum of consultative processes. However, I recognize the process is generally proponent-led so I will leave it to you to determine at what level DFOs involvement will be on that spectrum.
- Consider also that there is an opportunity here to send this information out to Aboriginal groups as a joint letter from VFPA-DFO, making clear that this is part of DFOs spectrum of consultation (i.e., phase 1 engagement with regard to the VFPAs future proposed project(s)) leading (eventually) to Consultation on Authorized works with potential offsetting from a Habitat Bank).

Plus, I would suggest the following minor revisions to the letter:

- 1st paragraph: indicate that the agreement was established in 2012 for 5 years, and the agreement has been extended until 2019, with the intention of the extension being to allow for VFPA and DFO to enter into a new arrangement.
- 2nd paragraph: we may wish to indicate that the sharing of information will be with Aboriginal Groups and others (*as applicable, or as requested) on the consultation process [... this just to ensure that there is not any indicated exclusion of others ... such as a municipality if they request such information] – a bit nit-picky but letter then covers all situations the information could be used.
- 3rd paragraph: remove word “specific”.
- 5th paragraph: I would change the word consultation to engagement as a preference since this is a joint-session and DFO is not consulting (yet) – it kind of depends also on your decision re: above.
- Last paragraph: if joint letter, we should have a DFO contact.

On the package of materials:

- Recommend inclusion of a brief description of all of the HBs identified in the HEP Overview.

Suzanne

From: Caillin Katnich [mailto:Caillin.Katnich@portvancouver.com]
Sent: 2018-July-13 11:48 AM
To: Nutton, Byron
Cc: Thorpe, Suzanne; Olson, Charlotte; Ruffo, Gord
Subject: RE: June 26 DFO-VFPA Meeting RE Habitat Bank Arrangement and Indigenous Engagement - Follow Up Items
Importance: High

Hi Byron,

As a follow up to Charlotte's email below, please find attached a draft information package for Indigenous engagement regarding a new Habitat Bank Arrangement, for your review and comment. In the attached you will find the following draft documents:

- Cover letter to be sent to each Indigenous group
- Attachment 1
 - Overview of VFPA's Habitat Enhancement Program (HEP)
 - VFPA jurisdiction map
 - HEP overview map
- Attachment 2
 - Draft overview of Aboriginal engagement on habitat projects delivered for inclusion in VFPA's habitat bank
- Attachment 3
 - HEP project example: New Brighton Park Shoreline Habitat Restoration Project

Please note that, upon finalization of this content, we're planning to design this document using the style used on attachment 3, the New Brighton Park Shoreline Habitat Restoration Project overview.

If you and/or Suzanne have any questions as you review, please feel free to let Charlotte or me know.

Regards,

Caillin

Caillin Katnich
Communications Advisor
Habitat Enhancement Program



Vancouver Fraser Port Authority
100 The Pointe, 999 Canada Place
Vancouver, B.C. Canada V6C 3T4

P: 778.988.6180
portvancouver.com

From: Olson, Charlotte

Sent: July-12-18 11:29 AM

To: Nutton, Byron <Byron.Nutton@dfo-mpo.gc.ca>

Cc: Thorpe, Suzanne <Suzanne.Thorpe@dfo-mpo.gc.ca>; Caillin Katnich
<Caillin.Katnich@portvancouver.com>

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s.19(1)

Sent: 2018-June-26 4:20 PM

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Cc: Scoble, Jemma <Jemma.Scoble@portvancouver.com>; Ruffo, Gord <Gord.Ruffo@portvancouver.com>

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Cheers!

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Manager, Infrastructure Habitat Development



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P: 604.665.9590 | CELL: 604.349.4111
portvancouver.com

**Pages 634 to / à 651
are duplicates of
sont des duplicatas des
pages 608 to / à 609**

From: Thorpe, Suzanne
Sent: Monday, July 16, 2018 1:02 PM
To: Olson, Charlotte
Subject: Accepted: CONFIRMED-Prep Meeting with VFPA-DFO for September-October Habitat Bank Engagement Meetings

No information has been removed or severed from this page

Thorpe, Suzanne

From: Olson, Charlotte <Charlotte.Olson@portvancouver.com>
Sent: Tuesday, July 17, 2018 11:35 AM
To: Nutton, Byron
Cc: Thorpe, Suzanne; Caillin Katnich
Subject: RE: June 26 DFO-VFPA Meeting RE Habitat Bank Arrangement and Indigenous Engagement - Follow Up Items

No problem, thanks for the update Byron

Charlotte Olson P.Geo., PMP
Manager, Infrastructure Habitat Development

CELL: 604.349.4111

From: Nutton, Byron [mailto:Byron.Nutton@dfo-mpo.gc.ca]
Sent: Tuesday, July 17, 2018 8:42 AM
To: Olson, Charlotte <Charlotte.Olson@portvancouver.com>
Cc: Thorpe, Suzanne <Suzanne.Thorpe@dfo-mpo.gc.ca>; Caillin Katnich <Caillin.Katnich@portvancouver.com>
Subject: RE: June 26 DFO-VFPA Meeting RE Habitat Bank Arrangement and Indigenous Engagement - Follow Up Items

Hi again Charlotte,

Yesterday did not unfold as expected and I am in a meeting most of today, but will have it to you later this evening.

Regards,

Byron

From: Nutton, Byron
Sent: 2018-July-13 11:32 AM
To: 'Olson, Charlotte' <Charlotte.Olson@portvancouver.com>
Cc: Thorpe, Suzanne <Suzanne.Thorpe@dfo-mpo.gc.ca>; Caillin Katnich <Caillin.Katnich@portvancouver.com>
Subject: RE: June 26 DFO-VFPA Meeting RE Habitat Bank Arrangement and Indigenous Engagement - Follow Up Items

In the last couple days I haven't had a chance to dig into the stuff that Suzanne prepared while I was away, but based on a quick overview it is very close. I will get through it and send you a draft on Monday.

I am good for the 22nd and will come to Vancouver.

I'll leave it with Suzanne to confirm as well, but I know we had pencilled in the 21st-23rd so expect it will still work for her as well.

Cheers,

Byron

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Subject: RE: June 26 DFO-VFPA Meeting RE Habitat Bank Arrangement and Indigenous Engagement - Follow Up Items

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The content will be sent in draft for your review/comment next week (per our plan we discussed) – **and my colleague copied here, Caillin Katnich – will be emailing the draft content to you.**

At this time, we'd also like to confirm the prep. meeting Wed August 22nd (10am-12noon) – if that works for you Byron, can you come to Vancouver office or?

Cheers,

Charlotte Olson P.Geo., PMP
Manager, Infrastructure Habitat Development

CELL: 604.349.4111

From: Olson, Charlotte

Sent: Friday, July 06, 2018 2:06 PM

To: 'Nutton, Byron' <Byron.Nutton@dfo-mpo.gc.ca>; Thorpe, Suzanne <Suzanne.Thorpe@dfo-mpo.gc.ca>

Cc: Ruffo, Gord <Gord.Ruffo@portvancouver.com>; Scoble, Jemma <Jemma.Scoble@portvancouver.com>; Bryce, James <James.Bryce@portvancouver.com>

Subject: RE: June 26 DFO-VFPA Meeting RE Habitat Bank Arrangement and Indigenous Engagement - Follow Up Items

Importance: High

Hi Byron and Suzanne

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1. I've prepared a short summary of actions (first attachment). Please don't hesitate to respond if I've missed something, or captured something in error.
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Later next week, I will send out Calendar invites for our August meeting (Aug 21-23 TBC) – thanks for info below Byron.

Cheers,

Charlotte Olson P.Geo., PMP
Manager, Infrastructure Habitat Development

CELL: 604.349.4111

From: Nutton, Byron [mailto:Byron.Nutton@dfo-mpo.gc.ca]
Sent: Wednesday, June 27, 2018 12:56 PM
To: Olson, Charlotte <Charlotte.Olson@portvancouver.com>
Cc: Thorpe, Suzanne <Suzanne.Thorpe@dfo-mpo.gc.ca>
Subject: RE: June 26 DFO-VFPA Meeting RE Habitat Bank Arrangement and Indigenous Engagement

Hi Charlotte,

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2. After checking my calendar, unfortunately I am not available the week of September 17-21, but Suzanne and I have confirmed our availability for Tues-Thurs the weeks of Sep 10th and 24th, and Tues-Thurs the weeks of Oct 1st, 9th and 16th
3. I have confirmed with Tola that at this time DFO does not have any scheduled sessions for the next phase of engagement on the Fisheries Act review, but she suspects that things will be starting to happen around end of September or early October – once we have proposed dates for engagement on banking I will let her know
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Regards,

Byron

From: Olson, Charlotte [mailto:Charlotte.Olson@portvancouver.com]
Sent: 2018-June-26 4:20 PM
To: Nutton, Byron <Byron.Nutton@dfo-mpo.gc.ca>; Thorpe, Suzanne <Suzanne.Thorpe@dfo-mpo.gc.ca>
Cc: Scoble, Jemma <Jemma.Scoble@portvancouver.com>; Ruffo, Gord <Gord.Ruffo@portvancouver.com>
Subject: June 26 DFO-VFPA Meeting RE Habitat Bank Arrangement and Indigenous Engagement

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As discussed, we will work toward our July 13 date for having our content ready, for review the following week.

Also – Byron, by early July, we will endeavor to provide you with a copy of the draft Indigenous consultation Annex (to our habitat banking arrangement), that we have been working on - as you requested.

Lastly – Suzanne, please see the below link and second PDF attachment to this email for an overview of our completed New Brighton Park Shoreline Habitat Restoration Project

<https://www.portvancouver.com/development-and-permits/development/new-brighton-park-shoreline-habitat-restoration-project/>

Cheers!

Charlotte Olson P.Geo., PMP
Manager, Infrastructure Habitat Development



Vancouver Fraser Port Authority
100 The Pointe, 999 Canada Place
Vancouver, B.C. Canada V6C 3T4

P: 604.665.9590 | CELL: 604.349.4111
portvancouver.com

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Thorpe, Suzanne

From: Caillin Katnich <Caillin.Katnich@portvancouver.com>
Sent: Monday, July 23, 2018 5:01 PM
To: Nutton, Byron
Cc: Thorpe, Suzanne; Olson, Charlotte; Ruffo, Gord
Subject: RE: DFO Content for Indigenous Engagement Package-VFPA Comments
Attachments: 2018-07-23-03-600-VFPA and DFO DRAFT Information Package-Rev0.pdf

Hi Byron,

Per Charlotte's email below, please find attached a final draft package for the upcoming consultation regarding our Habitat Banking Arrangement. As noted below, this package includes your draft document (Attachment 4) with the understanding that you'll send a revised version back ASAP.

Please let me know if you have any questions about the attached.

Thanks,

Caillin

Caillin Katnich
Communications Advisor
Habitat Enhancement Program

From: Olson, Charlotte
Sent: July-23-18 3:32 PM
To: Nutton, Byron <Byron.Nutton@dfo-mpo.gc.ca>
Cc: Caillin Katnich <Caillin.Katnich@portvancouver.com>; Ruffo, Gord <Gord.Ruffo@portvancouver.com>; Thorpe, Suzanne <Suzanne.Thorpe@dfo-mpo.gc.ca>
Subject: RE: DFO Content for Indigenous Engagement Package-VFPA Comments

Hi Byron, in follow up to my note below.

Thanks for providing your material for our upcoming consultation on our Arrangement for Habitat Banking. We have reviewed this document and have provided a marked-up version with our comments (attached). Most of the comments are self-explanatory but here is some added detail on our comments:

1. The Habitat Ledger should be presented as a "sample" and as such, references to VFPA (or PMV) should be removed so it is a generic ledger. It is important that it is clear that this is not VFPA's ledger. Also, the slide included references to MOU's which probably should be changed to "Arrangements". Also, the first two entries are not ledger items that we would use; is this intended to show how DFO tracks administrative items related to the bank?
2. We suggest deleting the "Next Steps" section as the covering letter provides the details on the process that is being used.
3. We suggest deleting "DFO Contact Information" at this time as we identified Jemma Scoble as the contact person for this engagement process we are embarking on. If we can keep all correspondence going to Jemma through this process, she can ensure that our consultation records are complete.

Caillin Katnich from our team will preparing a single PDF package shortly so you can see how the package will look. We are including your current draft document but recognize that edits will be made.

Can you please make these edits we suggest here, and send your content back to us asap?

We remain on track for completing this consultation package by the end of this week (Friday, July 27) if so.

Thanks for your efforts on this!

Charlotte

Charlotte Olson P.Geo., PMP
Manager, Infrastructure Habitat Development

CELL: 604.349.4111

From: Olson, Charlotte

Sent: Monday, July 23, 2018 10:35 AM

To: 'Nutton, Byron' <Byron.Nutton@dfo-mpo.gc.ca>

Cc: Caillin Katnich <Caillin.Katnich@portvancouver.com>; Ruffo, Gord <Gord.Ruffo@portvancouver.com>; Thorpe, Suzanne <Suzanne.Thorpe@dfo-mpo.gc.ca>

Subject: RE: DFO Content for Indigenous Engagement Package-update?

Thanks Byron for sending this DFO-prepared content. We will take a look.

Per our discussion, and in alignment with what we sent you on July 13th – for format, we are proposing a letter + Attachment package. We have prepared the letter and the first 3 Attachments, and you have just sent your content for Attachment 4. On our end, we will “lay-out” the content as a final draft PDF package (with cover sheets for the 4 Attachments) and send back to you for a look, I expect we can have this to you tomorrow.

Thanks,

Charlotte Olson P.Geo., PMP
Manager, Infrastructure Habitat Development

CELL: 604.349.4111

From: Nutton, Byron [mailto:Byron.Nutton@dfo-mpo.gc.ca]

Sent: Saturday, July 21, 2018 4:23 PM

To: Olson, Charlotte <Charlotte.Olson@portvancouver.com>

Cc: Caillin Katnich <Caillin.Katnich@portvancouver.com>; Ruffo, Gord <Gord.Ruffo@portvancouver.com>; Thorpe, Suzanne <Suzanne.Thorpe@dfo-mpo.gc.ca>

Subject: RE: DFO Content for Indigenous Engagement Package-update?

Hi Charlotte.

Our network was down yesterday so couldn't send – thanks for your on-going patience.

Please see attached draft DFO content – comments, suggestions, etc. welcomed.

We still need to figure out the best way to present (format) your and our information.

Cheers,

Byron

From: Olson, Charlotte [<mailto:Charlotte.Olson@portvancouver.com>]

Sent: 2018-July-19 12:20 PM

To: Nutton, Byron <Byron.Nutton@dfo-mpo.gc.ca>; Thorpe, Suzanne <Suzanne.Thorpe@dfo-mpo.gc.ca>

Cc: Caillin Katnich <Caillin.Katnich@portvancouver.com>; Ruffo, Gord <Gord.Ruffo@portvancouver.com>

Subject: RE: DFO Content for Indigenous Engagement Package-update?

Hi Byron & Suzanne, just checking in on this? I am away for the day on Vancouver Island tomorrow, do we expect to receive DFO's content today or?

If received tomorrow, we will aim to review and finalize the package next week – in order to stay on our proposed schedule of getting this package out in early August.

Please send any comments on what we already sent you July 13th.

Thanks!

Charlotte Olson P.Geo., PMP
Manager, Infrastructure Habitat Development

CELL: 604.349.4111

From: Nutton, Byron [<mailto:Byron.Nutton@dfo-mpo.gc.ca>]

Sent: Tuesday, July 17, 2018 8:42 AM

To: Olson, Charlotte <Charlotte.Olson@portvancouver.com>

Cc: Thorpe, Suzanne <Suzanne.Thorpe@dfo-mpo.gc.ca>; Caillin Katnich <Caillin.Katnich@portvancouver.com>

Subject: RE: June 26 DFO-VFPA Meeting RE Habitat Bank Arrangement and Indigenous Engagement - Follow Up Items

Hi again Charlotte,

Yesterday did not unfold as expected and I am in a meeting most of today, but will have it to you later this evening.

Regards,

Byron

From: Nutton, Byron

Sent: 2018-July-13 11:32 AM

To: 'Olson, Charlotte' <Charlotte.Olson@portvancouver.com>

Cc: Thorpe, Suzanne <Suzanne.Thorpe@dfo-mpo.gc.ca>; Caillin Katnich <Caillin.Katnich@portvancouver.com>

Subject: RE: June 26 DFO-VFPA Meeting RE Habitat Bank Arrangement and Indigenous Engagement - Follow Up Items

In the last couple days I haven't had a chance to dig into the stuff that Suzanne prepared while I was away, but based on a quick overview it is very close. I will get through it and send you a draft on Monday.

I am good for the 22nd and will come to Vancouver.

I'll leave it with Suzanne to confirm as well, but I know we had pencilled in the 21st-23rd so expect it will still work for her as well.

Cheers,

Byron

From: Olson, Charlotte [mailto:Charlotte.Olson@portvancouver.com]

Sent: 2018-July-12 11:29 AM

To: Nutton, Byron <Byron.Nutton@dfo-mpo.gc.ca>

Cc: Thorpe, Suzanne <Suzanne.Thorpe@dfo-mpo.gc.ca>; Caillin Katnich <Caillin.Katnich@portvancouver.com>

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Charlotte Olson P.Geo., PMP

Manager, Infrastructure Habitat Development



Vancouver Fraser Port Authority

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Vancouver, B.C. Canada V6C 3T4

P: 604.665.9590 | CELL: 604.349.4111

portvancouver.com

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Vancouver Fraser Port Authority
100 The Pointe, 999 Canada Place
Vancouver, B.C. Canada V6C 3T4
portvancouver.com

August 1, 2018

[Name(s)]
[Title(s)/Aboriginal group]
[Address]
[Address]
[City/Town], B.C. [Postal code]

Via email: [email address(es)]

Dear [Name],

The Vancouver Fraser Port Authority (VFPA) currently has a formal agreement with Fisheries and Oceans Canada (DFO) for habitat banking that enables VFPA to create habitat ahead of infrastructure development. This agreement was established in 2012 and will expire in early 2019. It is the intent of VFPA and DFO to enter into a new agreement for habitat banking.

Prior to entering into this new agreement, VFPA would like to share information with Aboriginal groups on the consultation process used for the delivery of future habitat projects that are proposed for VFPA's habitat bank. This is also an opportunity for VFPA to obtain [insert name of group]'s input on this process and to address any questions related to the habitat bank. To facilitate this engagement, VFPA is providing the attached information that describes the following:

- VFPA's Habitat Enhancement Program, which manages the habitat bank
- VFPA's Aboriginal consultation and engagement process used for the delivery of proposed habitat projects that would be included in the habitat bank
- A recent habitat project example (New Brighton Park Shoreline Habitat Restoration Project) that was constructed for inclusion in VFPA's habitat bank
- DFO's overview of offsetting with habitat banks

To further support the sharing of information and feedback, we are proposing to hold scheduled information sessions where the material provided in these information packages would be presented and representatives from VFPA and DFO would be available to answer specific questions.

These information sessions are tentatively scheduled for:

- September 11th (Lower Mainland)
- October 11rd (Vancouver Island)

Invitations to these information sessions will be forwarded in the near future and will provide venue locations and time of sessions.

Input from Aboriginal groups into the consultation process used for the delivery of proposed habitat projects for VFPA's habitat bank is important to VFPA and, as such, VFPA will be seeking feedback up to November 2, 2018.

All comments and information received through the information sessions or through other correspondence will be considered, documented and responded to as part of this process. A summary report of this input will also be prepared by VFPA and submitted to DFO. This report will also be shared with Aboriginal groups.

If you have any questions, comments or concerns regarding the information package provided herein, please contact Jemma Scoble at (778) 822-7240 or jemma.scoble@portvancouver.com.

Yours truly,

VANCOUVER FRASER PORT AUTHORITY



Charlotte Olson, P.Geo., PMP
Manager, Infrastructure Habitat Development
Vancouver Fraser Port Authority's Habitat Enhancement Program

Attached (4): Attachment 1: Overview of VFPA's Habitat Enhancement Program
Attachment 2: Overview of Aboriginal Consultation and Engagement on Habitat Projects Delivered for Inclusion in VFPA's Habitat Bank
Attachment 3: Project Example: New Brighton Park Shoreline Habitat Restoration Project
Attachment 4: DFO's Overview of Offsetting with Habitat Banks



ATTACHMENT 1

Overview of VFPA's Habitat Enhancement Program



Attachment 1

Overview of VFPA's Habitat Enhancement Program

Overview of VFPA's Habitat Enhancement Program

About the Habitat Enhancement Program

The Habitat Enhancement Program (HEP) was developed by the Vancouver Fraser Port Authority as a part of a broader strategy around gateway growth, acknowledging that habitat sites may be required to offset effects from port infrastructure development. HEP looks to balance infrastructure development opportunities with a healthy environment.

Enhancing fish and wildlife habitat supports the port's approach to sustainability. Specifically, HEP implements well-planned strategies to manage habitat conservation, restoration and habitat enhancement. HEP creates and enhances fish and wildlife habitat for habitat banking purposes, use as offsetting for port infrastructure development, or a combination of both.

The port authority started enhancing habitat in the 1990s. In the past five years, 13 habitat sites that would cover an area of approximately 10 hectares have been created or enhanced. Recent examples included the New Brighton Park Shoreline Habitat Enhancement Project in Vancouver and the Glenrose Tidal Marsh Project in Delta. HEP has also completed feasibility work for over 100 hectares of potential habitat enhancement.

HEP manages VFPA's habitat bank, which was established through a formal agreement with Fisheries and Oceans Canada (DFO). This agreement is set to expire in early 2019 and DFO and VFPA are working to enter into a new agreement for habitat banking.



Glenrose Tidal Marsh Project – post-construction at Glenrose Cannery (August 2016)



New Brighton Park – post-construction (May 2018)



New Brighton Park – juvenile salmon using the created wetland during the second spring season after connection to Burrard Inlet (May 2018)



Attachment 1

Overview of VFPA's
Habitat Enhancement Program

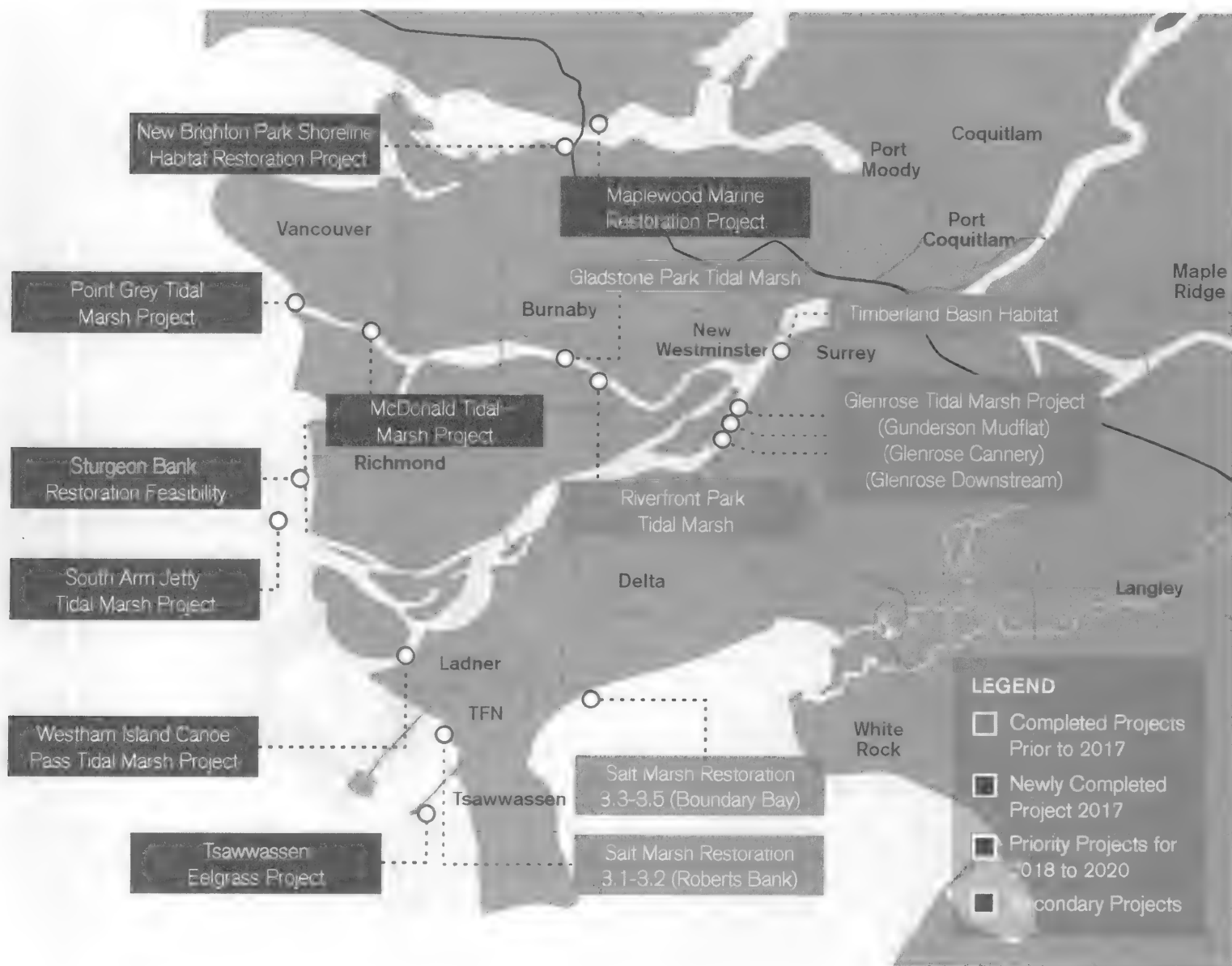
Vancouver Fraser Port Authority Jurisdiction





Attachment 1 Overview of VFPA's Habitat Enhancement Program

Habitat Enhancement Program Overview





ATTACHMENT 2

Overview of Aboriginal Consultation and Engagement on Habitat Projects Delivered for Inclusion in VFPA's Habitat Bank



Attachment 2

Overview of Aboriginal Consultation and Engagement on Habitat Projects Delivered for Inclusion in VFPA's Habitat Bank

Overview of Aboriginal Consultation and Engagement on Habitat Projects Delivered for Inclusion in VFPA's Habitat Bank

Aboriginal consultation and engagement

The Vancouver Fraser Port Authority (VFPA) manages lands and waters that intersect the asserted and established traditional territories and treaty lands of several Coast Salish First Nations. VFPA recognizes the history and contemporary interests of Aboriginal Peoples and works to establish and maintain productive relationships through Aboriginal consultation, regular communication, and a desire to engage in mutually beneficial opportunities to enhance the Asia-Pacific Gateway.

Over the past several years, there has been an evolving awareness and recognition of the critical importance of appropriately and effectively consulting and engaging the various Aboriginal communities within the port authority's area of jurisdiction.

VFPA recognizes and respects that local Aboriginal communities and their leadership want meaningful and ongoing input into the planning, operation, and expansion of port facilities and related transportation infrastructure. Accordingly, the port authority is committed to continued and active engagement with Aboriginal groups who have interests that may potentially be affected by port development.

For the delivery of habitat enhancement projects that are proposed for inclusion in VFPA's habitat bank, consultation and engagement aims to identify and address project-related impacts, to design and implement appropriate mitigation measures, and to explore opportunities for Aboriginal involvement such as participation in field studies and/or employment, training and contracting.

As appropriate, VFPA will also consult Aboriginal groups on individual habitat projects. The project-specific consultation process is outlined in the following pages.

Where relevant, the VFPA's Habitat Enhancement Program (HEP) also undertakes consultation in accordance with the requirements of regulatory processes such as the VFPA Project Environmental Review (PER) process. Regulatory agencies may also undertake consultation as part of their process in reviewing habitat enhancement projects.



New Brighton Park – the Musqueam, Squamish and Tsleil-Waututh Nations collaborated with the port authority and the Vancouver Park Board to enhance approximately one hectare of habitat along the shore of Burrard Inlet in east Vancouver (September 2017)



New Brighton Park – an extensive planting program was completed by crews from Inlailawatash (spring 2017)



Attachment 2

Overview of Aboriginal Consultation and Engagement on Habitat Projects Delivered for Inclusion in VFPA's Habitat Bank

Project development process

The development of habitat enhancement projects is achieved through six basic project management phases that are used to guide and control the project from start to finish.

Starting with the identification of a potential project, this process provides for the structured development and advancement of all required components required for project delivery.

PHASE 1

(Project Identification):

The "idea" or the vision of what could be achieved.

PHASE 2

(Project Definition):

What are the project objectives? Constraints?

PHASE 3

(Design Development):

How will the project objectives be achieved?

PHASE 4

(Permitting and Approvals):

Obtaining formal permission to perform the work.

PHASE 5

(Implementation/Construction):

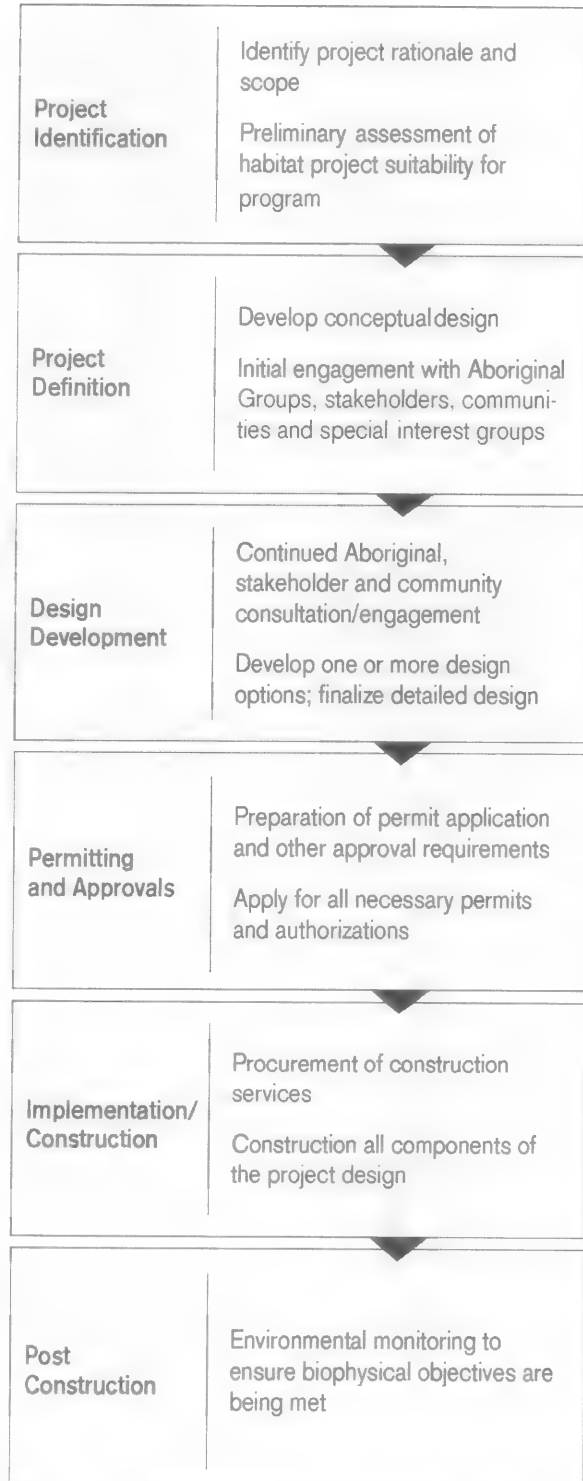
Construction of the habitat enhancement project.

PHASE 6

(Post Construction):

Ensuring long-term success of the habitat enhancement project.

The illustration to the right depicts these six key project management phases and provides the key tasks associated with each.





Attachment 2

Overview of Aboriginal Consultation and Engagement on Habitat Projects Delivered for Inclusion in VFPA's Habitat Bank



Phase 1 – Project Identification

The identification of potential habitat enhancement projects is a critical component of the project delivery process. Consideration must be made for habitat need, habitat productivity, feasibility, cost, land tenure, DFO confirmation and Aboriginal considerations.

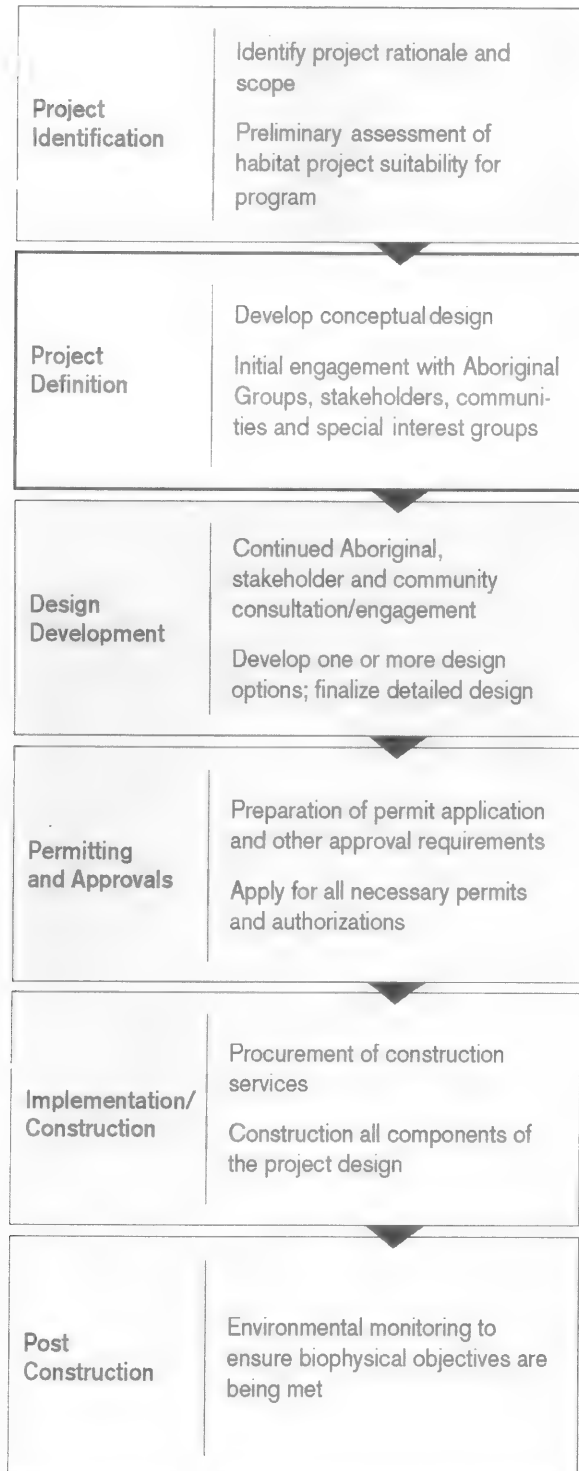
Aboriginal Consultation and Engagement

- HEP seeks input from Aboriginal groups on identification of potential habitat enhancement sites
- HEP seeks input from Aboriginal groups on habitat enhancement projects identified by others
- Aboriginal groups share available traditional knowledge, information and studies



Attachment 2

Overview of Aboriginal Consultation and Engagement on Habitat Projects Delivered for Inclusion in VFPA's Habitat Bank



Phase 2 – Project Definition

The development of conceptual designs is key to defining what a habitat project could include. Using these concept designs, initial engagement and consultation on specific project features can start.

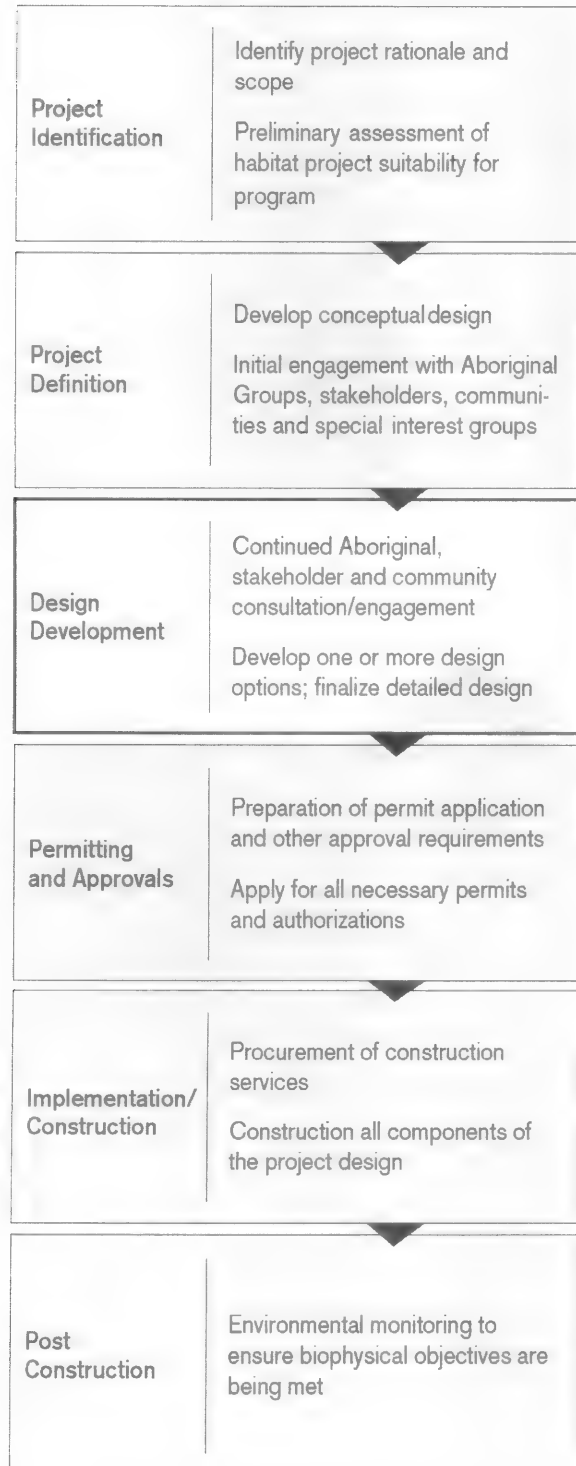
Aboriginal Consultation and Engagement

- HEP consults Aboriginal groups on preferred engagement activities for project (e.g. Aboriginal Technical Design Committee)
- HEP consults Aboriginal groups on project concept
- HEP identifies potential habitat values (i.e. credit estimates) that could be created and engages with interested Aboriginal Groups
- Aboriginal groups share Traditional Knowledge with HEP
- HEP identifies opportunity for involving Aboriginal groups in field studies and assessments
- HEP starts planning for Aboriginal involvement throughout project (e.g. contracting, employment and training opportunities)



Attachment 2

Overview of Aboriginal Consultation and Engagement on Habitat Projects Delivered for Inclusion in VFPA's Habitat Bank



Phase 3 – Design Development

In the design phase, one or more designs are developed and evaluated. Through an iterative design process, a final design is selected and is refined to include all details necessary for construction.

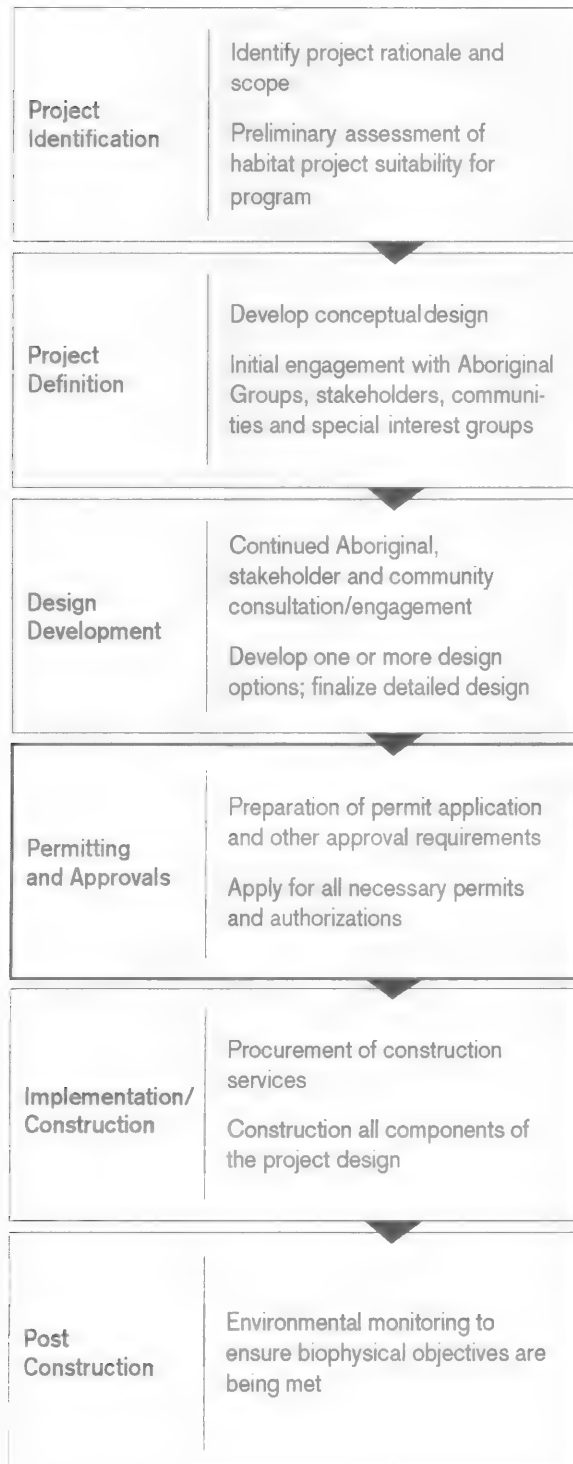
Aboriginal Consultation and Engagement

- HEP consults Aboriginal groups on the design options
- HEP considers Aboriginal feedback and refines design of project, where appropriate (including selection of plant species)
- Where required, HEP undertakes further consultation with Aboriginal groups on the design
- HEP finalizes the design
- HEP shares final design with Aboriginal groups
- HEP confirms habitat values (i.e. credits) and consults with Aboriginal groups
- HEP obtains DFO confirmation of appropriateness of habitat project for HEP
- HEP plans for continued Aboriginal involvement in subsequent phases



Attachment 2

Overview of Aboriginal Consultation and Engagement on Habitat Projects Delivered for Inclusion in VFPA's Habitat Bank



Phase 4 – Permitting and Approvals

Permits and approvals that are required must be addressed on a project-by-project basis as regulatory requirements and land ownership can vary significantly.

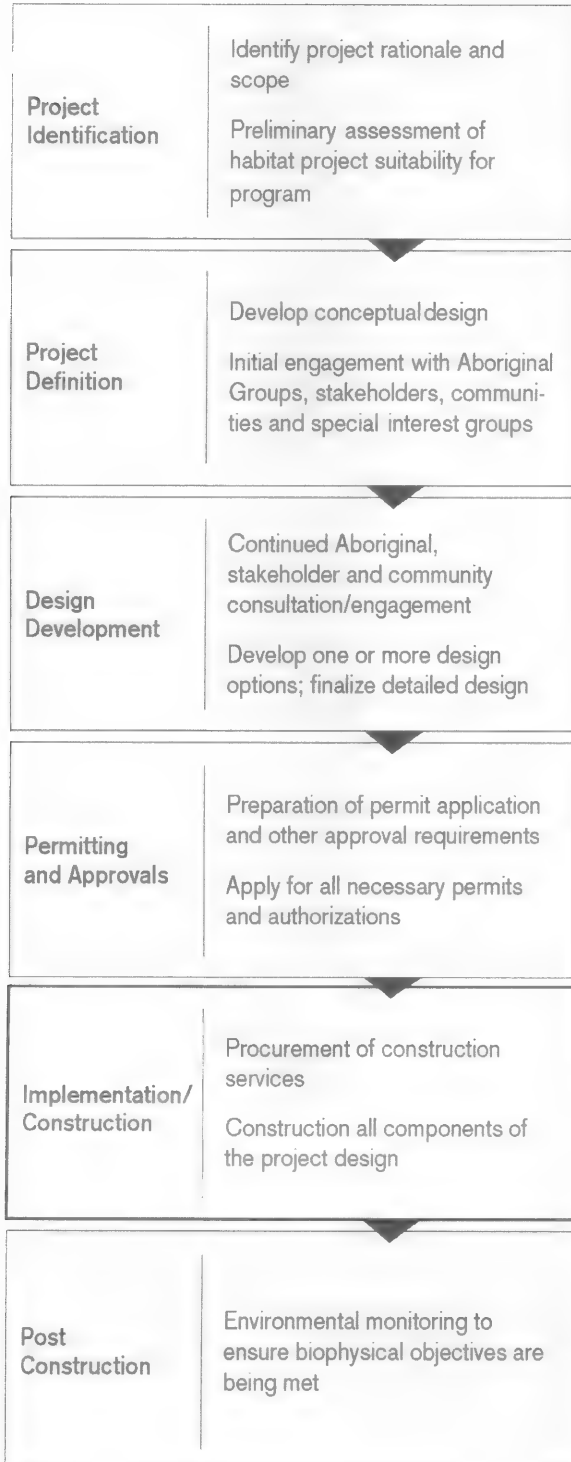
Aboriginal Consultation and Engagement

- HEP engages Aboriginal groups in relation to permits and approvals
- HEP develops a summary of permits and approvals required and shares with Aboriginal groups
- HEP seeks Aboriginal input and support on permit applications
- HEP notifies Aboriginal groups of submission of permit applications
- Regulators and permitting authorities may undertake Aboriginal consultation
- HEP plans for continued Aboriginal involvement in subsequent phases



Attachment 2

Overview of Aboriginal Consultation and Engagement on Habitat Projects Delivered for Inclusion in VFPA's Habitat Bank



Phase 5 – Implementation/Construction

The habitat enhancement project truly takes shape during the Implementation/Construction Phase.

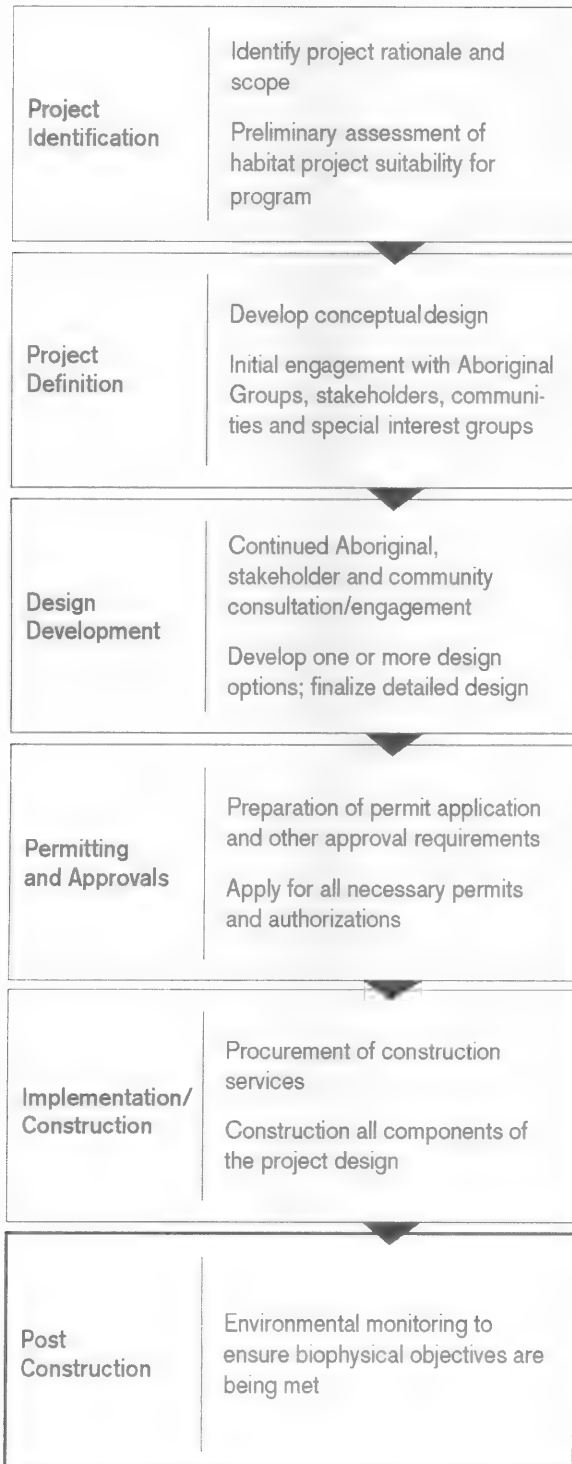
Aboriginal Consultation and Engagement

- HEP identifies approach to procurement and determines opportunities for Aboriginal involvement/benefits
- HEP monitors conditions of approval/permits and any commitments to Aboriginal groups
- HEP continues to keep Aboriginal groups updated on progress of construction
- HEP plans for continued Aboriginal involvement in Post Construction Phase



Attachment 2

Overview of Aboriginal Consultation and Engagement on Habitat Projects Delivered for Inclusion in VFPA's Habitat Bank



Phase 6 – Post Construction

Aboriginal Consultation and Engagement

- HEP shares Post Construction Monitoring Plan with Aboriginal groups
- Potential contracting opportunities for Aboriginal groups (e.g. maintenance, monitoring)



ATTACHMENT 3

**Project Example: New Brighton Park
Shoreline Habitat Restoration Project**



Attachment 3

Project Example: New Brighton Park Shoreline Habitat Restoration Project

Project Example

New Brighton Park Shoreline Habitat Restoration Project

Description, Location and Size

The Vancouver Fraser Port Authority and the Vancouver Board of Parks and Recreation, along with Musqueam, Squamish and Tsleil-Waututh Nations, worked together to restore habitat in New Brighton Park. The New Brighton Park Shoreline Habitat Restoration Project was successfully completed in summer 2017, achieving the goals of restoring fish and wildlife habitat in Burrard Inlet and increasing public access to nature.

This project is situated within New Brighton Park, along the south side of Burrard Inlet, west of the Ironworkers Memorial Bridge, in Vancouver, B.C. It has resulted in the restoration and enhancement of approximately two hectares of intertidal, subtidal, instream and riparian habitat. An extensive planting program was completed at the site, including installation of approximately 25,000 salt marsh plugs, 200 native trees and 4,000 coastal shrubs.

This project presented a significant opportunity to restore coastal wetland habitat on the south shore of Burrard Inlet. Juvenile fish from the Indian and Seymour rivers have been known to experience high mortality as they migrate through Burrard Inlet. A restored salt marsh provides productive habitat for juvenile fish and wildlife, including shorebirds, songbirds and waterfowl.



Pre-construction (September 2016)



Post-construction (May 2018)



Attachment 3

Project Example: New Brighton Park Shoreline Habitat Restoration Project

Rationale

The site was selected based on its potential to benefit a broad range of fish and wildlife species and to increase the overall ecological function of the area. This project has restored and enhanced a historically filled foreshore and upland area by providing high-value habitat for fish, birds and other wildlife.



Juvenile salmon using the created wetland during the second spring season after connection to Burrard Inlet (May 2018)

Aboriginal Collaboration

From the early stages, this project was developed in collaboration with the Musqueam, Squamish and Tsleil-Waututh Nations.

At the request of the Musqueam, Squamish and Tsleil-Waututh Nations, a separate Aboriginal Technical Committee was formed and three design workshops were held. Economic and employment opportunities were also created through construction delivery.

The involvement of the Musqueam, Squamish and Tsleil-Waututh Nations throughout the various stages of the project – design, consultation and construction – was a key component of project delivery.

For Further Information

For further information about the Habitat Enhancement Program, please visit portvancouver.com/habitatenhancement or email habitat.enhancement@portvancouver.com.



Park signage that was developed in collaboration with Aboriginal groups was installed around the constructed wetland (May 2018)

Status and Next Steps

Project construction was completed in summer 2017. Juvenile chum, coho and Chinook salmon have been observed using the tidal wetland as a stopover on their way through Burrard Inlet every spring since project completion.

As is the case with all Habitat Enhancement Program projects, annual monitoring is completed by biologists and coastal engineers to ensure the wetland habitat meets its biophysical objectives. Protective fencing is anticipated to remain in place for the first few growing seasons to deter Canada geese from feeding on the salt marsh plantings, and to allow the native vegetation to successfully establish within the wetland.

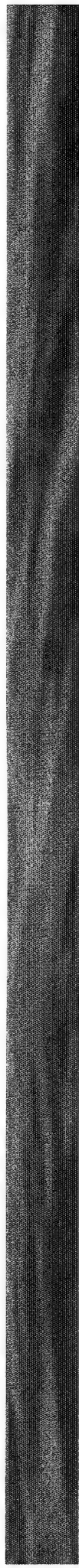


Looking northeast, with the constructed tidal wetland in the foreground (May 2018)



ATTACHMENT 4

Fisheries and Oceans Canada Overview of Offsetting with Habitat Banks



Title

Committee

Date

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- Click View
- Click Slide Master
- Select text box on (title and other slides) and hit delete
- On the View menu, click Normal to return to editing



Presentation Overview

1. Requirements for *Fisheries Act* Authorizations (Section 35(2)(b))
 - *Fisheries Act* Authorizations
 - Regulatory Review Process
 - Offsetting Measures
2. Proponent-Led Habitat Banking
 - Key Concepts
 - Conservation Projects
 - Indigenous Engagement and Consultation
 - Habitat Bank Tracking
3. Habitat Banking Arrangements
 - Process to Develop an Arrangement
4. Next Steps



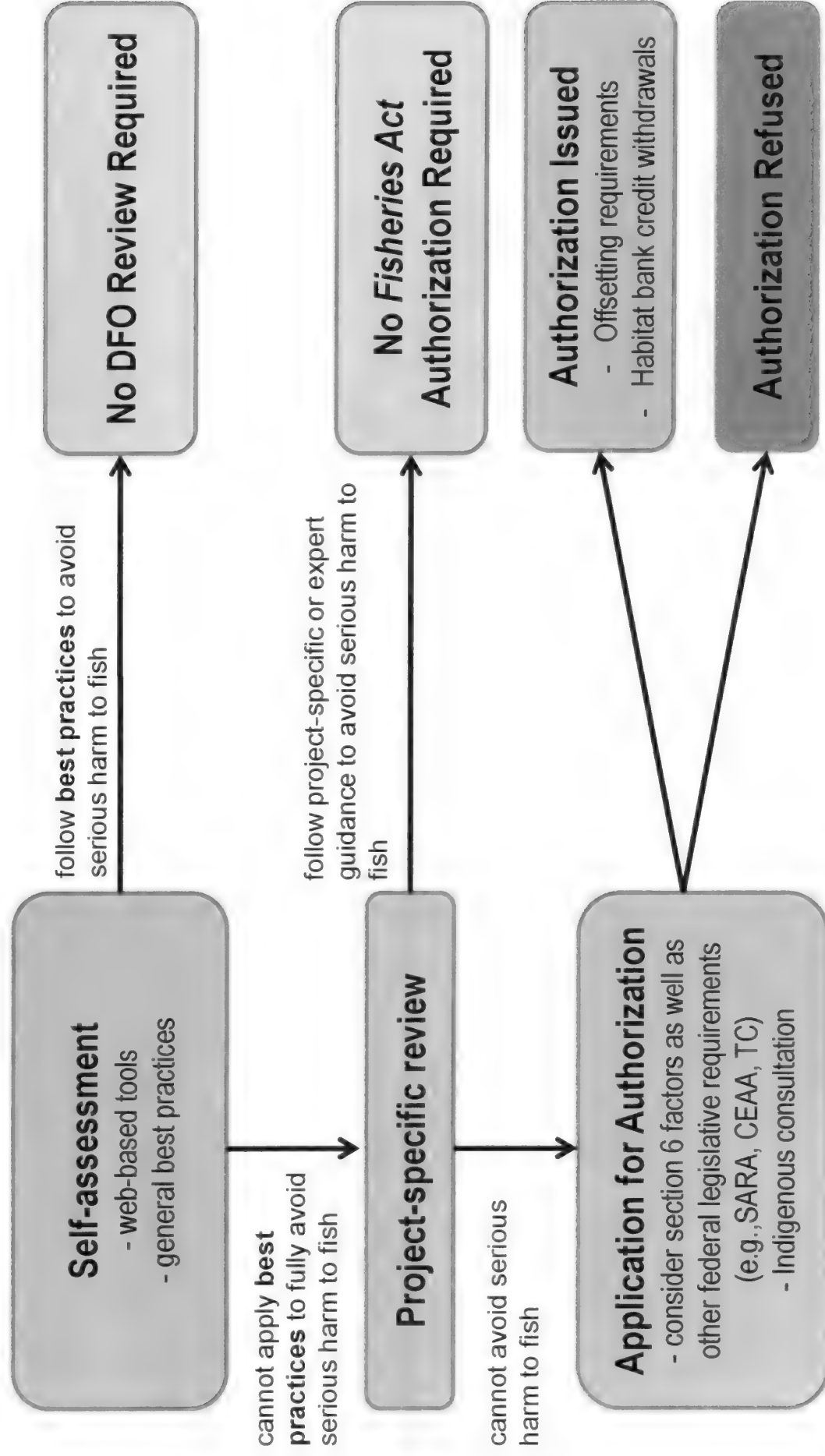
Requirements for Fisheries Act Authorizations (Section 35(2)(b))



Fisheries Act Authorizations

- DFO's Fisheries Protection Program (FPP) is responsible for the administration of the fisheries protection provisions of the *Fisheries Act* (FA), and certain permitting provisions under the *Species At Risk Act* (SARA).
- Section 35 of the FA prohibits “*serious harm to fish that are part of a commercial, recreational or Aboriginal fishery, or to fish that support such a fishery.*”
- *Serious harm to fish* is defined as “*the death of fish, or any permanent alteration to or destruction of fish habitat*”.
- Proponents are responsible for avoiding and mitigating *serious harm to fish*, and when they are unable to completely avoid or mitigate *serious harm to fish* their projects will normally require an Authorization under Section 35(2) of the FA in order to proceed.

Regulatory Review Process





Offsetting Measures

After efforts to avoid and mitigate impacts, residual *serious harm to fish* should be addressed by offsetting that counterbalances the *serious harm to fish* resulting from a project, with the goal of maintaining or improving fisheries productivity.



Guiding Principles:

1. Offsetting measures must support fisheries management objectives or local restoration priorities.
2. Benefits from offsetting measures must balance project impacts.
3. Offsetting measures must provide additional benefits to the fishery.
4. Offsetting measure must generate self-sustaining benefits over the long term.



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Proponent-Led Habitat Banking



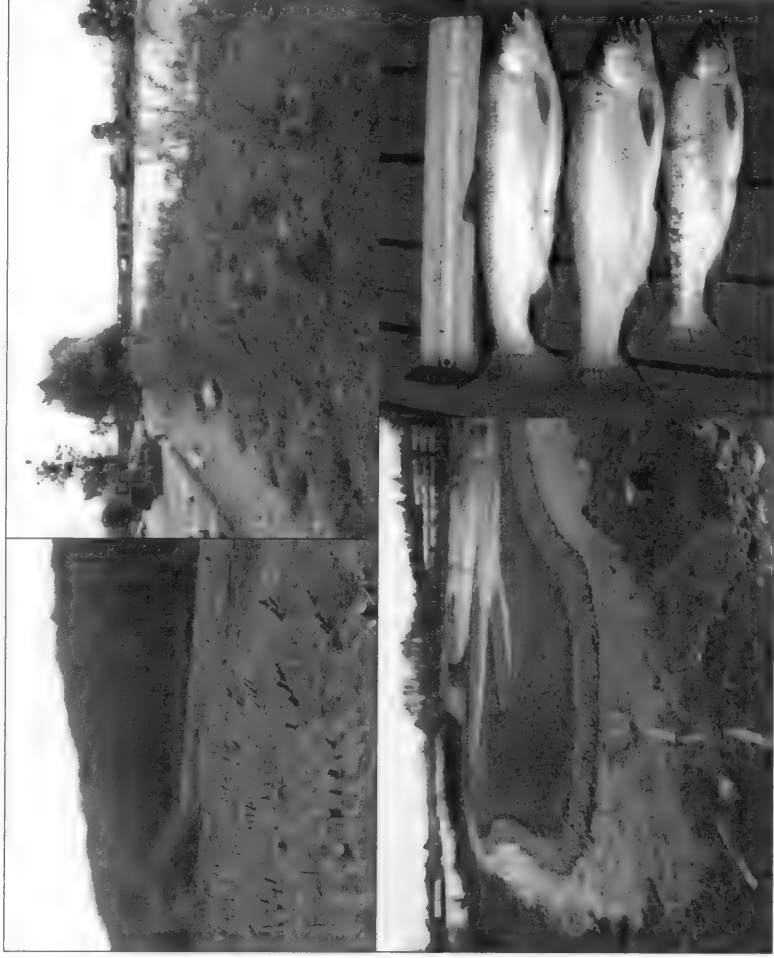
Key Concepts

- Formalized approach for proponents to undertake habitat improvement projects (known as “conservation projects”) to establish habitat credits that *may* be drawn upon to offset residual impacts on fish and fish habitat at a later date
- Enables proponents with multiple development projects to undertake more strategic, larger-scale conservation projects
- Useful to address the impacts from the construction, operation and long-term maintenance of components of large scale projects.
- Less uncertainty related to the effectiveness of the offsetting measures or the time required for the offsetting measures to become functional.
- A proponent-led habitat bank does not commit DFO to the authorization or permitting of any future work, undertaking or activity.



Conservation Projects

Habitat bank conservation projects must align with the *Fisheries Productivity Investment Policy: A Proponent's Guide to Offsetting*, November 2013.



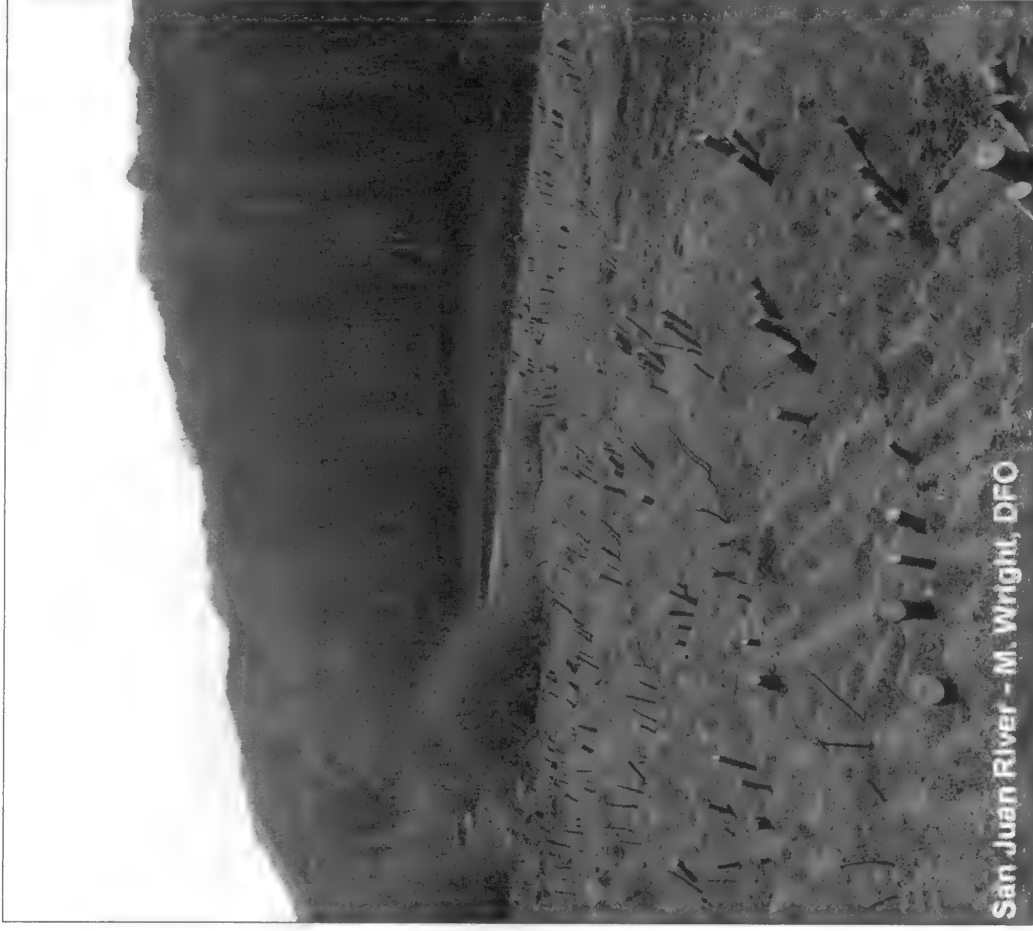
Offsetting measures fall under 3 main categories:

1. Habitat Restoration and Enhancement *
 2. Habitat Creation *
 3. Chemical or Biological Manipulations
- Complementary Measures
 - In-kind and out-of-kind approach

* Habitat Banking is most suited for 1 and 2.



Habitat Restoration and Enhancement



San Juan River - M. Wright, DFO

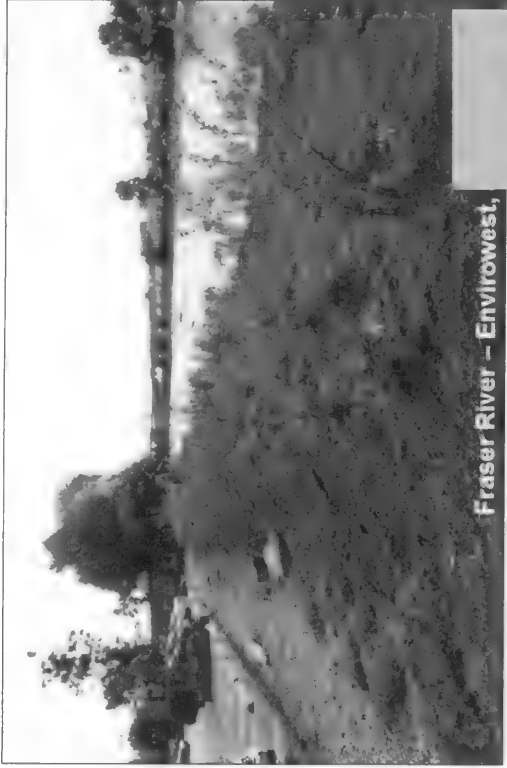
- The goal of habitat restoration and enhancement is to improve habitat function and productivity through physical manipulation of existing habitat.

- This offsetting measure is ideal in areas where habitat conditions are considered poor or degraded, and provide opportunity for the most benefit.

- ✓ River bank stabilization
- ✓ Re-vegetation of riparian areas
- ✓ Removal of anthropogenic barriers to fish migration
- ✓ Increasing shoreline complexity etc.



Habitat Creation



- Habitat creation is the development or expansion of aquatic habitat into a terrestrial area.
- This offsetting measure is generally used when productivity that was destroyed or degraded by a project cannot be restored by manipulation of the original or surrounding aquatic habitat
- ✓ Creation or expansion of:
 - Natural stream channels
 - Side channel habitats
 - Wetlands
 - Bays or marshes



Indigenous Engagement and Consultation

- Establishment and management of a proponent-led habitat bank must include the engagement of Indigenous groups that may be affected by the proponent-led habitat bank's conservation projects and the fisheries benefits they generate.
- Aboriginal and Treaty rights must be considered in the planning and establishment of a proponent-led habitat bank, and in particular planning the conservation projects and defining the service area to ensure there are no resulting adverse impacts on Aboriginal or Treaty rights.



Indigenous Engagement and Consultation

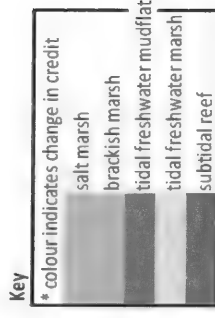
- When a proponent proposes to use habitat banking credits as part of a request for an authorization DFO must additionally undertake consultation with potentially affected Indigenous groups in relation to the proposed development project, including the proposed use of the habitat banking credits to meet their offsetting requirements.
- Through consultation, DFO will endeavor to understand potential adverse impacts on asserted or established Aboriginal or treaty rights and, where appropriate, identify ways to minimize those adverse impacts through avoidance, mitigation, or offsetting measures to be incorporated as conditions of Authorization.



Habitat Ledger

- Once approved for use, the habitat credit transaction is recorded in a habitat credit ledger; records are maintained by Proponent and DFO.

Habitat Bank:	Port Metro Vancouver Habitat Enhancement Program
Organization:	Port Metro Vancouver (PMV)
Proponent Contact:	Gord Ruffo (Program Manager, Habitat Enhancement Program, PMV)
DFO Contact:	TBD
Habitat Bank Status:	Active *see below for credit balances
Combined Credit (m2):	16,500



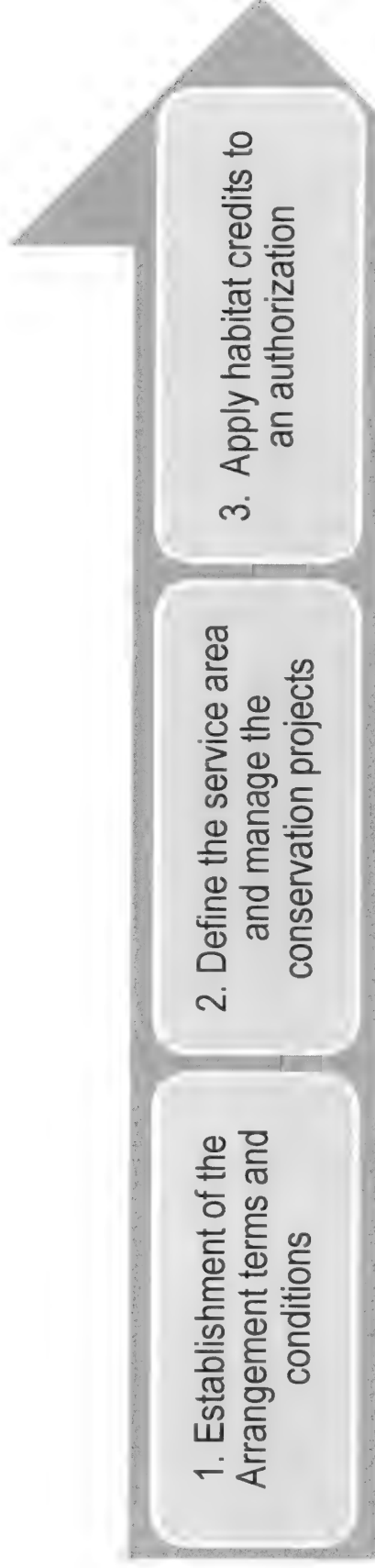
Documentation	Date of Documentation	PATH No. / Document Location	Prepared by	Location of Compensation	Comments	Habitat Type	Planned (m2)	Constructed (m2)	Banked (confirmed functional m2)	Debit (m2)	Total Credit (Area)
MOU: Habitat Banking Agreement between DFO-VFPA	TBC	XX-XXX-XXXX	DFO/ VFPA		MOU: discusses the establishment of a habitat compensation bank for credits accumulated from the development of aquatic habitats.						
Proposed Approach for Determining Net Habitat Banking Credits	July 2018	XX-XXX-XXXX	VFPA/ 123 Consultants		Habitat Credit Valuation process proposed for multiple proposed habitat banks						
Habitat Banking Credits for Marsh Creation	August 2018	XX-XXX-XXXX	VFPA	Fake Park, Fake Arm - Fake River	The credits in the PMV habitat bank are registered in the habitat bank. Credits were given for the construction of marsh benches in Fake Park, along the North Arm of the Fake Arm of the Fake River.	tidal freshwater marsh	5,000	4,500	5,000		4,500
						brackish marsh	2,000	2,500	2,000		2,500
						salt marsh		500	500		500
Marine subtidal reef creation	August 2018	XX-XXX-XXXX	456 Consultants	Zero Arm, No River	Project involves the construction of three separate high-value subtidal reef areas off-shore of Zero Arm and south of the 44 Jetty. Expected habitat credits include 9,000m2 of subtidal reef to be added to the bank.	subtidal reef	9,000				9,000
Total all types:											16,500

Habitat Banking Arrangements



Habitat Banking Arrangements (HBAs)

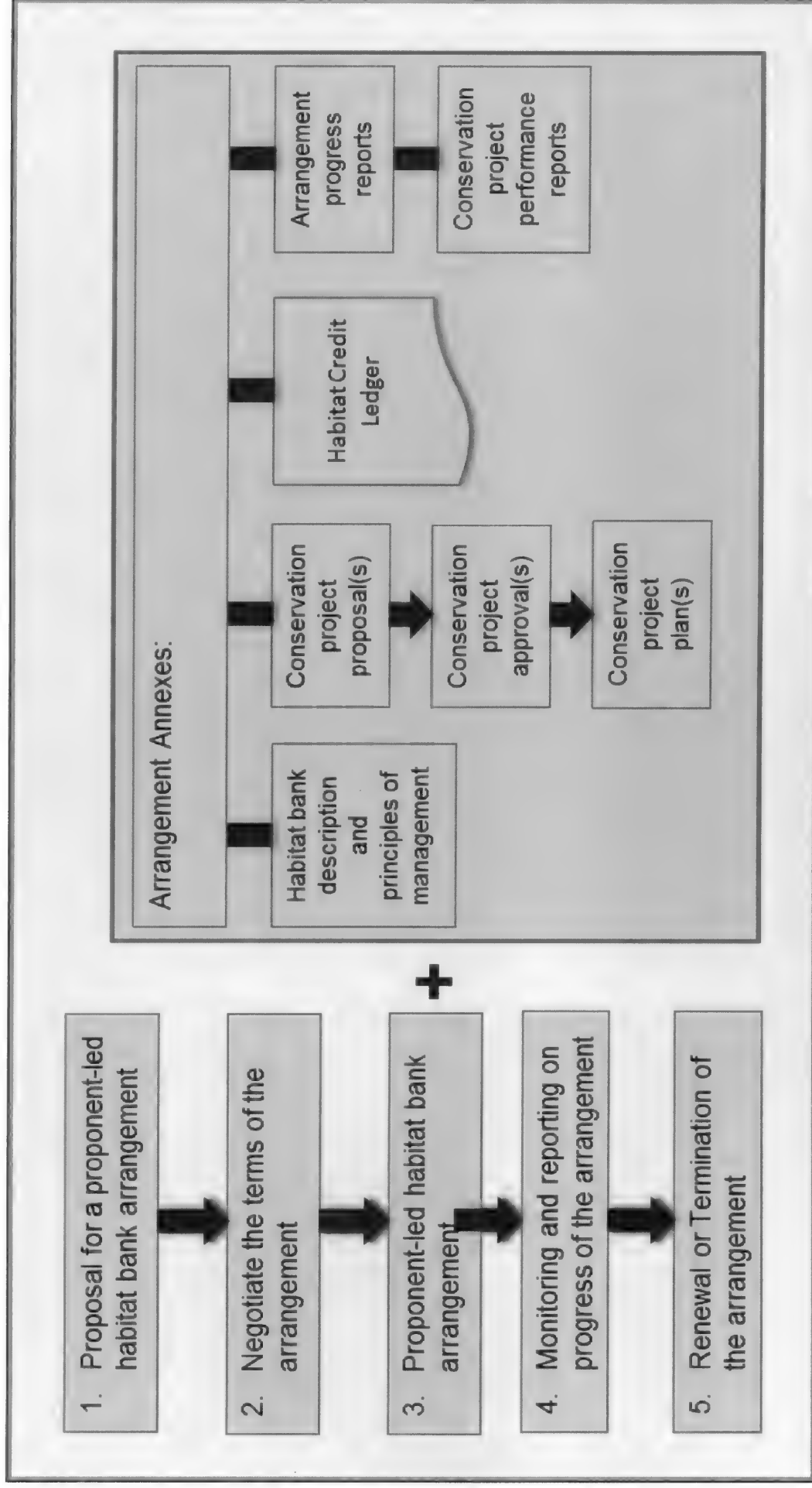
- A Habitat Banking Arrangement (HBA) between DFO and a Proponent forms the basis for the management and administration of the Habitat Bank.



- The terms and conditions of the Habitat Banking Arrangement are based on a legally-reviewed template, applicable to all proponents, for the time period specified in the Arrangement.



Process to Develop an Arrangement





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Next Steps



Next Steps

- Receive and review feedback from Indigenous engagement sessions and address any identified concerns / issues.
- DFO and VFPA to finalize Annexes for Habitat Banking Arrangement, including the Indigenous Consultation and Engagement Plan
- DFO and VFPA enter into formal agreement as signatories to the DFO-VFPA Habitat Banking Arrangement
- VFPA to continue to operate, manage and monitor habitat banks in accordance with the Arrangement
- DFO to monitor, verify and administer proponent-led Arrangement.

Future (TBD):

- Indigenous Consultation required when DFO contemplates the issuance of an Authorization requesting use of habitat credits.



DFO Contact Information

1. Byron Nutton
Team Lead, Standards and Guidelines
Fisheries Protection Program, DFO
250-618-4268 Byron.Nutton@dfo-mpo.gc.ca
2. Suzanne Thorpe
Senior Fisheries Protection Biologist
Fisheries Protection Program, DFO
604-666-3512 Suzanne.Thorpe@dfo-mpo.gc.ca

VFPA discussion re compensation - RRU - banking connections.txt
Subject: VFPA discussion re: compensation - RRU - banking connections
Location: DFO CONF Vancouver-401BurrardSt-15-Taku CONF MPO

Start: Tue 7/24/2018 2:00 PM
End: Tue 7/24/2018 3:00 PM

Recurrence: (none)

Meeting Status: Meeting organizer

Organizer: Thorpe, Suzanne
Required Attendees: Richardson, Tessa; Engelsjord, Michael; Manson, Murray
Resources: DFO CONF Vancouver-401BurrardSt-15-Taku CONF MPO

Categories: Business

Will this work for everyone?

No information has been removed or severed from this page

VFPA/DFO HEP Engagement Summary - Squamish Nation [does not include MMRP and other HEP or CEP SQN communications]¹ August 2018 to March 2019

Date	Method	Representative(s)	Participant(s)	Summary
August 14, 2018	Email	Chief Bill Williams	Jemma Scoble	Email including electronic copy of Habitat Enhancement Program Information Package: -Overview of VFPA's Habitat Enhancement Program -Overview of Aboriginal Consultation and Engagement on Habitat Projects delivered for inclusion in VFPA's Habitat Bank -Project Example: New Brighton Park Shoreline Habitat Restoration Project -DFO's Overview of Proponent-led Habitat Banking Calendar invitation to the VFPA and DFO Habitat Enhancement Program Vancouver Workshop on September 11, 2018.
August 22, 2018	Email	Chief Bill Williams	Jemma Scoble	Chief Williams declined invitation to VFPA/DFO workshop.
August 23, 2018	Email	Chief Bill Williams	Jemma Scoble	Email to Chief Williams asking if Squamish Nation would like a meeting to discuss the Habitat Enhancement Program/DFO/VFPA agreement in lieu of the September 11th session.
August 23, 2018	Email	Chief Bill Williams	Jemma Scoble	Message for Chief Williams to call Jemma Scoble should a meeting regarding Habitat Enhancement Program and DFO/VFPA engagement be of interest to Squamish Nation.
October 4, 2018	Phone	Chief Bill Williams	Jemma Scoble	Message for Chief Williams regarding HEP DFO/VFPA engagement. Request for call.
October 11, 2018	Phone	Chief Bill Williams	Jemma Scoble	Message requesting Chief William call Jemma regarding the HEP/DFO engagement.
October 16, 2018	Phone	Chief Bill Williams	Jemma Scoble	Message for Chief Williams regarding HEP DFO/VFPA engagement. Request for call.
November 2, 2018	Phone	Chief Bill Williams	Jemma Scoble	Jemma phoned Chief Williams and left a message requesting to phone back to discuss the HEP DFO-VFPA Agreement and engagement and to offer a meeting with Squamish Nation.
November 4, 2018	Phone	Chief Bill Williams	Jemma Scoble	Message for Chief Williams to call Jemma Scoble if a meeting re HEP and VFPA/DFO engagement would be of interest.
November 7, 2018	Phone	Chief Bill Williams	Jemma Scoble	Message requesting Chief William call Jemma regarding the HEP/DFO engagement.
November 19, 2018	Phone	Chief Bill Williams	Jemma Scoble	Chief Williams called Jemma. Squamish will advise VFPA if a meeting is of interest.
November 19, 2018	Phone	Chief Bill Williams	Jemma Scoble	HEP's work with Squamish re Seymour Creek enhancement opportunities.
November 23, 2018	In Person	Chief Bill Williams	Jemma Scoble	Message to Chief William with offer to meet with HEP.
December 5, 2018	Phone	Chief Bill Williams	Jemma Scoble	Update re Draft report on DFO/VFPA engagement.
January 9, 2019	In Person	Chief Bill Williams	Jemma Scoble	Requested that Squamish Nation review report from DFO/VFPA HEP engagement to add any input that VFPA and DFO should consider. Chief Williams said to send the document when ready and he will review. ²
March 11, 2019	Phone	Chief Bill Williams	Jemma Scoble	

NOTE¹: This log only includes communications between Squamish Nation and VFPA HEP related to DFO/VFPA engagement on a new habitat bank Arrangement from August 2018 to March 2019. HEP regularly engages with Squamish on other aspects of the HEP program (not included in this log).

NOTE²: HEP has committed to providing the final "Summary of Indigenous Engagement on VFPA and DFO's Habitat Bank Arrangement" report to all Indigenous Groups (including Squamish Nation) by end of March 2019. The draft report was provided to Indigenous Groups who participated in the 3 information sessions the week of Feb 4/19. DFO will be provided record of final report distribution to all Indigenous Groups, and all comments received (at any time) will be considered.

* note changes by hand.
S.



PORT of
vancouver

August 1, 2018

[Name(s)]

Via email: [email address(es)]

[Title(s)/Aboriginal group]

[Address]

[Address]

[City/Town], B.C. [Postal code]

Dear [Name],

fish The Vancouver Fraser Port Authority (VFPA) currently has a formal agreement with Fisheries and Oceans Canada (DFO) for habitat banking that enables VFPA to create habitat ahead of infrastructure development. This agreement was established in 2012 and will expire in early 2019. It is the intent of VFPA and DFO to enter into a new agreement for habitat banking.

Prior to entering into this new agreement, VFPA^{and DFO} would like to share information with Aboriginal groups on the consultation process used for the delivery of future habitat projects that are proposed for VFPA's habitat bank. This is also an opportunity for VFPA^{and DFO} to obtain [insert name of group]'s input on this process and to address any questions related to the habitat bank. To facilitate this engagement, VFPA is providing the attached information that describes the following:

- VFPA's Habitat Enhancement Program, which manages the habitat bank
- VFPA's Aboriginal consultation and engagement process used for the delivery of proposed habitat projects that would be included in the habitat bank
- A recent habitat project example (New Brighton Park Shoreline Habitat Restoration Project) that was constructed for inclusion in VFPA's habitat bank
- DFO's ~~overview of offsetting with habitat banks~~ ^{Overview of Proponent-led Habitat Banking,}

To further support the sharing of information and feedback, we are proposing to hold scheduled information sessions where the material provided in these information packages would be presented and representatives from VFPA and DFO would be available to answer specific questions.

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These information sessions are tentatively scheduled for:

- September 11th (Lower Mainland)
- October 11rd (Vancouver Island)

Invitations to these information sessions will be forwarded in the near future and will provide venue locations and time of sessions.

Input from Aboriginal groups into the consultation process used for the delivery of proposed habitat projects for VFPA's habitat bank is important to VFPA and, as such, VFPA will be seeking feedback up to November 2, 2018. ^{and DFO}

All comments and information received through the information sessions or through other correspondence will be considered, documented and responded to as part of this process. A summary report of this input will ^{WC} ~~also~~ ^{through VFPA} be prepared by VFPA and submitted to DFO. This report will also be shared with Aboriginal groups.

If you have any questions, comments or concerns regarding the information package provided herein, please contact Jemma Scoble at (778) 822-7240 or jemma.scoble@portvancouver.com.

Yours truly,

VANCOUVER FRASER PORT AUTHORITY



Charlotte Olson, P.Geo., PMP
Manager, Infrastructure Habitat Development
Vancouver Fraser Port Authority's Habitat Enhancement Program

Attached (4): Attachment 1: Overview of VFPA's Habitat Enhancement Program
Attachment 2: Overview of Aboriginal Consultation and Engagement on Habitat Projects Delivered for Inclusion in VFPA's Habitat Bank
Attachment 3: Project Example: New Brighton Park Shoreline Habitat Restoration Project
Attachment 4: DFO's Overview of ~~Offsetting with Habitat Banks~~ ^{Proponent-led Habitat Banking}

Melnick, Lorienta

From: Melnick, Lorienta
Sent: Thursday, August 2, 2018 3:08 PM
To: Thorpe, Suzanne
Subject: FW: 2018-07-13_HabitatBanking_VFPA-DFO_IGconsult_V3.ppt
Attachments: 2018-07-13_HabitatBanking_VFPA-DFO_IGconsult_V3.ppt

fyi

From: Melnick, Lorienta
Sent: July 13, 2018 3:40 PM
To: Nutton, Byron
Subject: 2018-07-13_HabitatBanking_VFPA-DFO_IGconsult_V3.ppt

Hi Byron,

With the time I had, I reviewed and revised the draft deck. I'm happy to discuss my proposed revisions Monday.

Of importance, more thought is still required on the following slides:

Slide 19 – Components of an Arrangement: ST suggests a diagram, I'm not convinced a diagram would be helpful. Is there another way to convey this information?

Slide 22 – Next Steps: What is currently written is only focused on DFO-VFPA interactions. What about for Indigenous groups? What is their role in all this? I suggest adding details here about how they can communicate their concerns and/or feedback to DFO. How do they want to be engaged with VFPA and DFO as this process unfolds? What are the timelines? I think these are the key points they want to understand in terms of next steps, especially given the deck does not discuss these points in any detail.

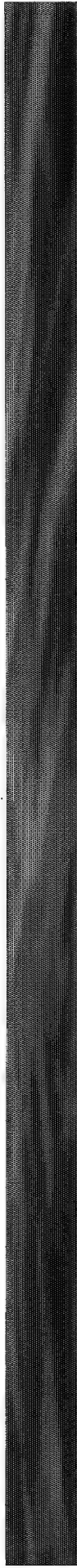
I hope this is helpful!

Lorienta



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Pêches et Océans
Canada



Title

Committee

Date

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Presentation Overview

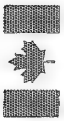
1. *Fisheries Act* Requirements for section 35(2)(b) Authorizations
 - *Fisheries Act* Section 6 Factors
 - Regulatory Review Process
 - Offsetting Measures
2. Proponent-Led Habitat Banking
 - Key Concepts, Purpose and Requirements
 - Habitat Bank Projects
 - Indigenous Consultation Requirements
 - Habitat Bank Tracking
3. Habitat Banking Arrangements
 - Components of an Arrangement
 - Process to Develop an Arrangement
4. Next Steps
 - DFO Contact Information



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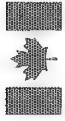
Pêches et Océans
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Fisheries Act: Requirements for s 35(2)(b) Authorizations



Fisheries Act Authorizations

- DFO's Fisheries Protection Program (FPP) is responsible for the administration of the fisheries protection provisions of the *Fisheries Act* (FA), and certain permitting provisions under the *Species At Risk Act* (SARA).
- Proponents require an authorization under the *Fisheries Act* when options to completely avoid serious harm to fish are not possible.
 - Section 35(2): *"No person shall carry on any work, undertaking or activity that results in serious harm to fish that are part of a commercial, recreational or Aboriginal fishery (CRA), or to fish that support such a fishery"*.
 - A serious harm to fish is defined under section 2 of the FA as *"The death of fish, or permanent alteration to or destruction of fish habitat"*.
- Authorizations are issued for projects likely to result in a localized effect to fish populations or fish habitat in the vicinity of the project and residual harm to fish remains after avoidance and mitigation measures are applied.

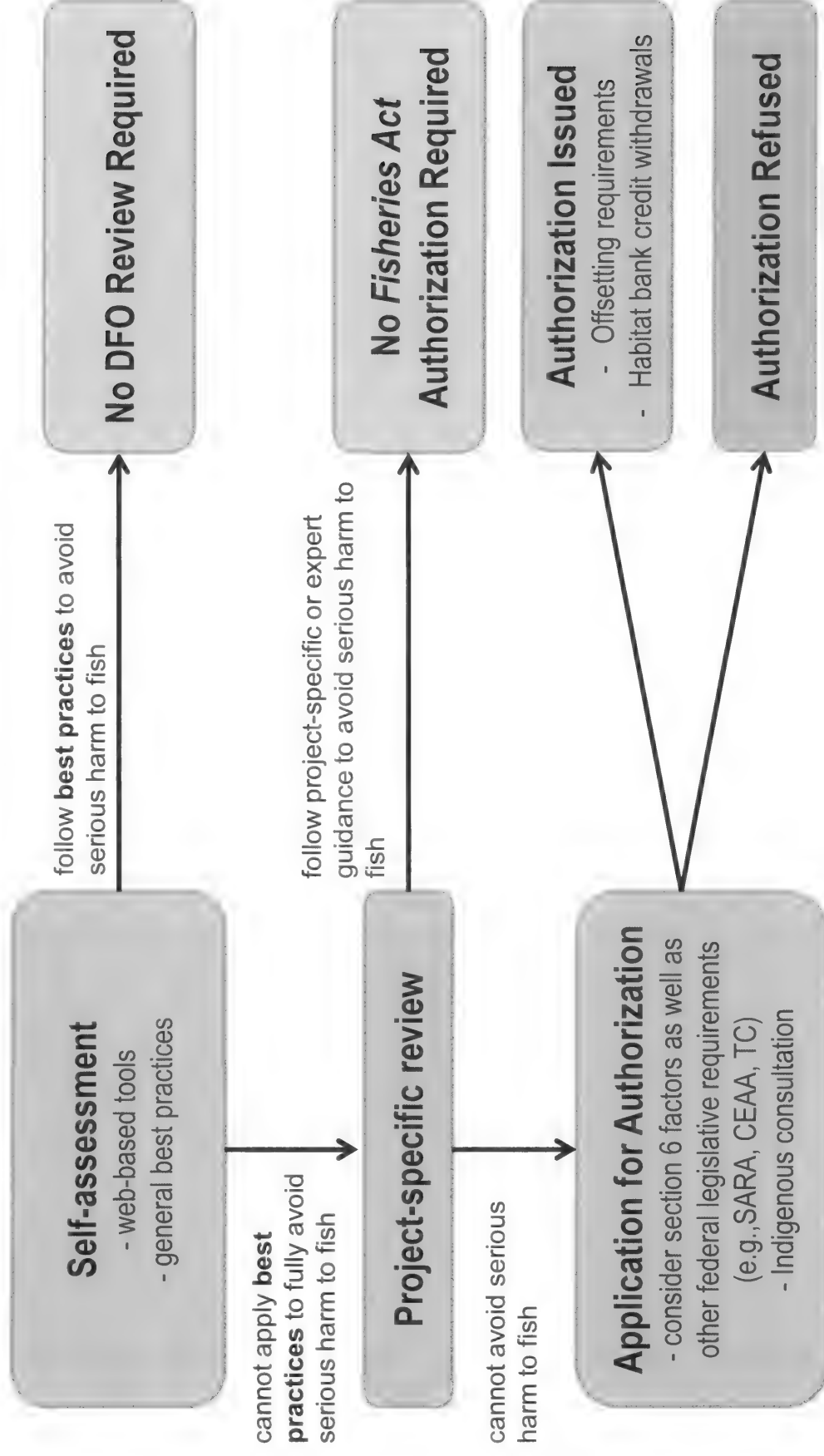


Section 6 Factors

When DFO contemplates the issuance of an Authorization, the Minister of Fisheries and Oceans must consider the factors set out in section 6 of the FA with respect to decisions under paragraph 35(2)(b) of the FA, which includes:

1. The contribution of the relevant fish to the ongoing productivity of CRA fisheries;
2. Fisheries Management Objectives;
3. Whether there are measures and standards to avoid, mitigate or offset serious harm to fish that area part of a CRA fishery, or fish that support such a fishery; and,
4. The public interest.

Regulatory Review Process





Offsetting Measures

After all feasible measures to avoid and mitigate impacts are implemented, **offsetting measures** are intended to counterbalance the *serious harm to fish* that is being authorized by maintaining or improving fisheries productivity



Guiding Principles:

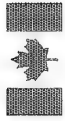
1. Offsetting measures must support fisheries management objectives and restoration priorities.
2. Benefits from offsetting measures must balance project impacts.
3. Offsetting measures must provide additional benefits to the fishery.
4. Offsetting measure must generate self-sustaining benefits over the long term.



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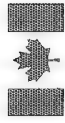
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Proponent-Led Habitat Banking



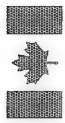
Habitat Banking: Key Concepts

- Formalized proponent-led approach to offsetting developed through a DFO-proponent MOU as a Habitat Banking Arrangement for future projects that will result in a serious harm to fish.
- Habitat credits *may* be drawn upon by proponents to counterbalance residual adverse effects on fish and fish habitat at a later date provided that the proponent can demonstrate the bank:
 1. supports fisheries management objectives or local restoration priorities;
 2. shows benefits that counterbalance the adverse effects on fish and fish habitat;
 3. provide additional benefits to the fishery; and,
 4. generate self-sustaining benefits over the long-term.
- Credit values are outlined in the conservation project plan, and are based on their proven effectiveness of fisheries productivity gains.



Habitat Banking: Purpose

- Enables proponents with multiple development projects to undertake more strategic, larger-scale conservation projects to:
 - address ecosystem function, foster biodiversity, provide opportunities for linking fragmented habitats; and,
 - take advantage of improved planning, scientific expertise and financial resourcing resulting in economies of scale.
- Useful to address the impacts from the construction, operation and long-term maintenance of components of large scale projects.
- Allows the effectiveness of the offsetting measures to be understood and for the habitat to be monitored and proven effective in contributing to the area's productivity in advance of serious harm to fish.
- Single project offsetting undertaken in association with an authorization can fail and result in significant delay in its contribution to fisheries productivity.



Habitat Banking: Requirements

- The development of a habitat bank is *independent* of whether or not the proponent will receive Authorization for any future proposed projects.
- Consultation with Indigenous groups is required before the establishment of a Habitat Bank.
- An adaptive management approach must be implemented and informed by monitoring of fish habitat indicators and performance targets.
- Where aquatic Species at Risk are present, considerations must include Recovery Strategies, Action Plans and Management Plans specific to the species



Offsetting and Proponent-led Habitat Banking

Proponent-led Habitat Banks must align with the *Fisheries Productivity Investment Policy: A Proponent's Guide to Offsetting*, November 2013.



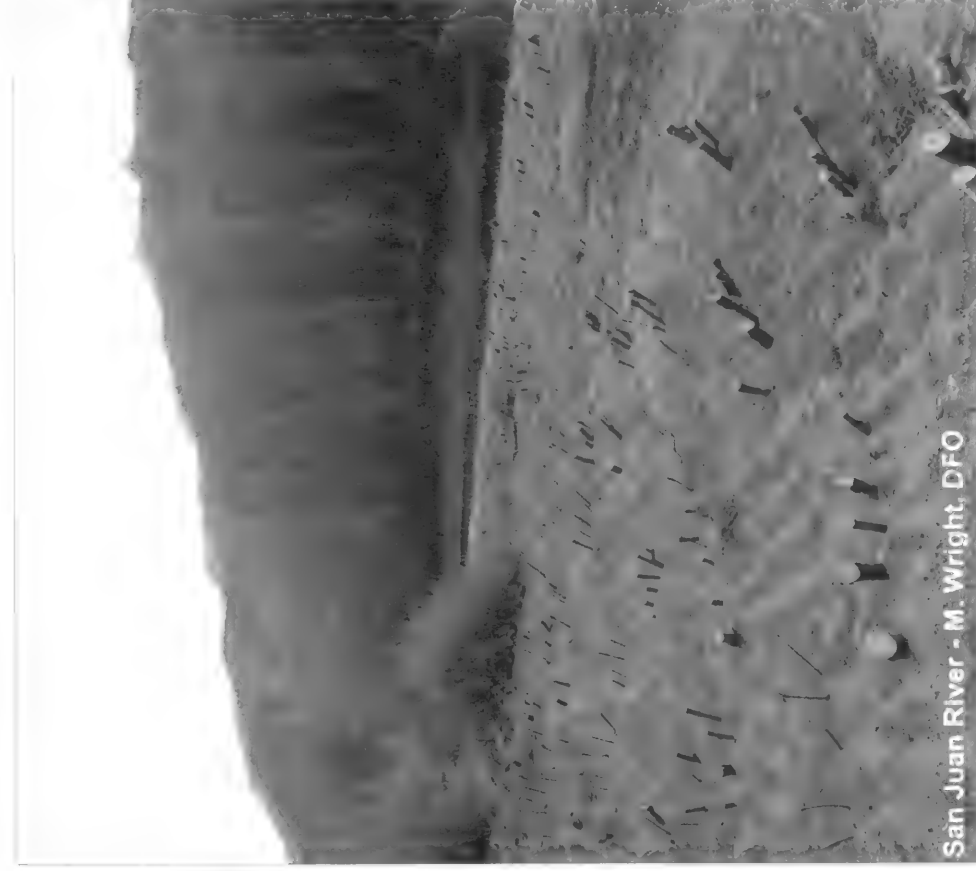
Offsetting measures fall under 3 main categories:

1. Habitat Restoration and Enhancement *
 2. Habitat Creation *
 3. Chemical or Biological Manipulations
- Complementary Measures
 - In-kind and out-of-kind approach

* Habitat Banking is most suited for 1 and 2.



Habitat Restoration and Enhancement



San Juan River - M. Wright, DFO

- The goal of habitat restoration and enhancement is to improve habitat function and productivity through physical manipulation of existing habitat.
- This offsetting measure is ideal in areas where habitat conditions are considered poor or degraded, and provide opportunity for the most benefit.
 - ✓ River bank stabilization
 - ✓ Re-vegetation of riparian areas
 - ✓ Removal of anthropogenic barriers to fish migration
 - ✓ Increasing shoreline complexity etc.

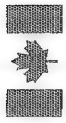


Habitat Creation



- Habitat creation is the development or expansion of aquatic habitat into a terrestrial area.
- This offsetting measure is generally used when productivity that was destroyed or degraded by a project cannot be restored by manipulation of the original or surrounding aquatic habitat
- ✓ Creation or expansion of:
 - Natural stream channels
 - Side channel habitats
 - Wetlands
 - Bays or marshes

s.19(1)



Indigenous Engagement and Consultation

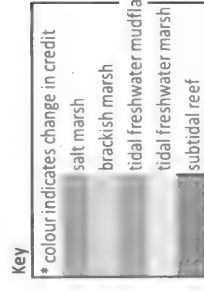
- During the development of any proposed Habitat Bank, DFO and the proponent will consult with potentially affected Indigenous groups on the **proposed conservation project and any other aspects of the Habitat Bank** that may have the potential to adversely impact asserted or established Aboriginal or treaty rights.
- When a proponent requests to **withdraw any credits** as part of a request for the issuance of an **authorization under section 35(2)(b) of the FA or permit under SARA**, DFO must additionally undertake consultation with potentially affected Indigenous groups in relation to the **proposed development project**, including the proponents proposed use of the habitat banking credits to meet their offsetting requirements.
- Through consultation, DFO will endeavor to **understand potential adverse impacts on asserted or established Aboriginal or treaty rights** and, where appropriate, **identify ways to minimize those adverse impacts through avoidance, mitigation, or offsetting measures** to be incorporated into the FA Authorization or SAR Permit.



Habitat Ledger

- Once approved for use, DFO-FPP logs the habitat credit transaction in a habitat credit ledger; records are maintained by Proponent and DFO.

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Organization:	Port Metro Vancouver (PMV)
Proponent Contact:	Gord Ruffo (Program Manager, Habitat Enhancement Program, PMV)
DFO Contact:	TBD
Habitat Bank Status:	Active *see below for credit balances
Combined Credit (m2):	16,500



Documentation	Date of Documentation	PATH No. / Document Location	Prepared by	Location of Compensation	Comments	Habitat Type	Planned (m2)	Constructed (m2)	Banked (confirmed functional m2)	Debit (m2)	Total Credit (Area)
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Habitat Banking Arrangements

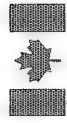


Habitat Banking Arrangements (HBAs)

- A Habitat Banking Arrangement (HBA) is an MOU between DFO and a Proponent that forms the basis for the management and administration of the Habitat Bank.



- The terms and conditions of the Habitat Banking Arrangement are based on a legally-reviewed template, applicable to all proponents, for the time period specified in the Arrangement.



Components of a Habitat Banking Arrangement

ST4

As Habitat Banking is a proponent-led process, the proponent is responsible to:

1. Define the Service Area
2. Identify conservation project(s)
 - Location
 - Define fisheries benefits
3. Develop conservation project plan
4. Establish fish habitat indicators and performance targets
5. Outline habitat credit valuation process and establishment of habitat credit ledger (habitat credit accounting system)
6. Conservation project monitoring and reporting
7. Site ownership or land tenure

Slide 19

ST4

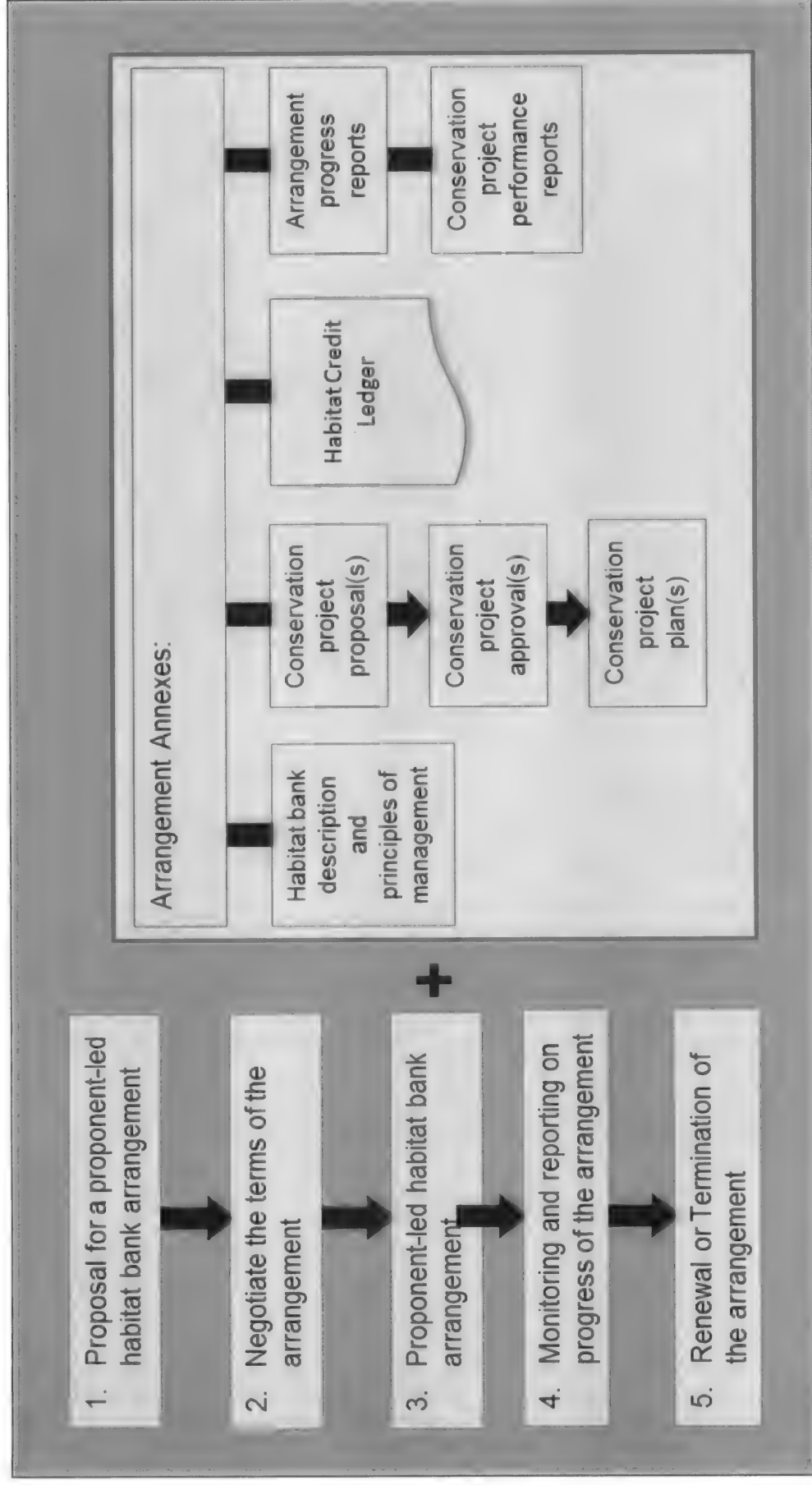
If we choose to keep the information on this slide, a presenting the information in a process diagram may be best
DFO-MPO, 7/10/2018

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ST1

Process to Develop an Arrangement



Slide 20

ST1

We may need to re-design this slide as it is a copy/paste for draft copy - the picture imports as one item making editing (of colour) not possible.

DFO-MPO, 7/9/2018

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Next Steps: DFO-VFPA



Next Steps

ST5

- Receive and review feedback from Indigenous engagement sessions and address any identified concerns/ issues.
- DFO and VFPA to finalize Annexes for Habitat Banking Arrangement, including the Indigenous Consultation and Engagement Plan
- DFO and VFPA enter into formal agreement as signatories to the DFO-VFPA Habitat Banking Arrangement
- VFPA to continue to operate, manage and monitor habitat banks in accordance with the Arrangement
- DFO to monitor, verify and administer proponent-led Arrangement.

Future (TBD):

- Indigenous Consultation required when DFO contemplates the issuance of an Authorization requesting use of habitat credits.

Slide 22

- ST5** Not sure we need a slide like this since VFPA will likley have a timeline/ process chart available.
- We could make this much simpler by just requesting comments to be submitted to either DFO or VFPA.
 DFO-MPO, 7/10/2018

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DFO Contact Information

1. Byron Nutton
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Fisheries Protection Program, DFO
(250)618-4268 Byron.Nutton@dfo-mpo.gc.ca
2. Suzanne Thorpe
Senior Fisheries Protection Biologist
Fisheries Protection Program, DFO
(604)666-3512 Suzanne.Thorpe@dfo-mpo.gc.ca

Smith, Shona

From: Smith, Shona
Sent: Friday, August 3, 2018 3:18 PM
To: Nutton, Byron
Subject: Habitat Banking PP
Attachments: 2018-07-20_HabitatBanking_VFPA-DFO_Engagement.ppt

Here you go :D

Shona Smith

Fisheries Protection Biologist | Fisheries Protection Program
Fisheries and Oceans Canada | Government of Canada
3190 Hammond Bay Road, Nanaimo BC V9T 6N7
shona.smith@dfo-mpo.gc.ca | Tel: 250-756-7256

Biologiste de la protection des pêches | Programme de protection des pêches
Pêches et Océans Canada | Gouvernement du Canada
3190 Hammond Bay Road, Nanaimo BC V9T 6N7
shona.smith@dfo-mpo.gc.ca | Téléphone 250-756-7256

Projects Near Water website:

<http://www.dfo-mpo.gc.ca/pnw-ppc/index-eng.html>



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Committee

Date

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- Click View
- Click Slide Master
- Select text box on (title and other slides) and hit delete
- On the View menu, click Normal to return to editing



Presentation Overview

1. Requirements for *Fisheries Act* Authorizations (Section 35(2)(b))
 - *Fisheries Act* Authorizations
 - Regulatory Review Process
 - Offsetting Measures
2. Proponent-Led Habitat Banking
 - Defining a Proponent-led Habitat Bank
 - Benefits
 - Conservation Projects
 - Indigenous Engagement and Consultation
 - Habitat Bank Tracking
3. Habitat Banking Arrangements
 - Process to Develop an Arrangement
4. Next Steps



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Requirements for Fisheries Act Authorizations (Section 35(2)(b))

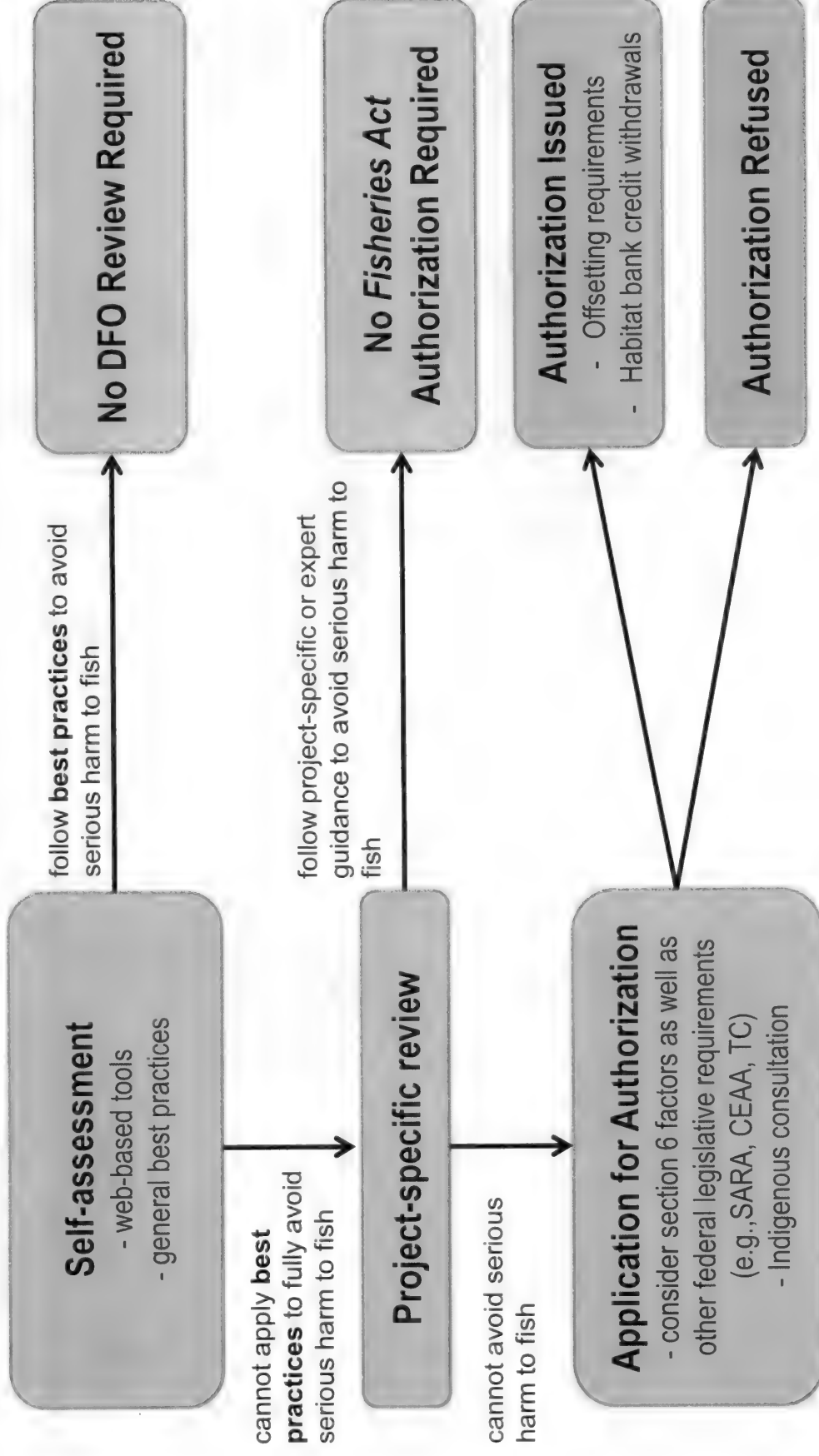


Fisheries Act Authorizations

- DFO's Fisheries Protection Program (FPP) is responsible for the administration of the fisheries protection provisions of the *Fisheries Act* (FA), and certain permitting provisions under the *Species At Risk Act* (SARA).
- Section 35 of the FA prohibits “serious harm to fish that are part of a commercial, recreational or Aboriginal fishery, or to fish that support such a fishery.”
- *Serious harm to fish* is defined as “the death of fish, or any permanent alteration to or destruction of fish habitat”.
- Proponents are responsible for avoiding and mitigating serious harm to fish, and when they are unable to completely avoid or mitigate serious harm to fish their projects will normally require an Authorization under Section 35(2) of the FA in order to proceed.



Regulatory Review Process





Offsetting Measures

After efforts to avoid and mitigate impacts are applied, the residual *serious harm to fish* will be addressed through offsetting measures. Offsetting measures are developed and implemented for the purpose of counterbalancing the *serious harm to fish* that results from project impacts. The goal is to maintain or improve fisheries productivity.

Guiding Principles:

1. Offsetting measures must support fisheries management objectives or local restoration priorities.
2. Benefits from offsetting measures must balance project impacts.
3. Offsetting measures must provide additional benefits to the fishery.
4. Offsetting measure must generate self-sustaining benefits over the long term.





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Proponent-Led Habitat Banking

What is a Proponent-led Habitat Bank?

- A freshwater or marine area that is a wetland, stream, lake, estuary, bay, or other aquatic resource area that has been created, restored, or enhanced by undertaking habitat improvement projects (known as “conservation projects”).
- Conservation projects would be established for the purpose of providing offsetting measures for unavoidable residual adverse effects to fish and fish habitat.
- These conservation projects take place in advance of a Proponent requesting an authorization or permit under the *Fisheries Act* and/or SARA, enabling proponents to establish “habitat credits”.
- Habitat credits may be drawn upon at a later date to counterbalance or offset residual adverse effects of projects on fish and fish habitat.



Habitat Banking Benefits

- ✓ A formalized approach
- ✓ Enables proponents with multiple development projects and anticipated future residual impacts on fish and fish habitat to undertake strategic, larger-scale conservation projects.
- ✓ Strategic, larger-scale conservation projects are often more likely to ensure ecosystem functions, foster biodiversity, and provide opportunities for linking fragmented habitats.
- ✓ Less uncertainty related to the proven effectiveness of the offsetting measures and/or the time required for the offsetting measures to become functional as the conservation projects are built and monitored for effectiveness in advance of impacts from the development project occurring.
- ✓ A proponent-led habitat bank does not commit DFO to the authorization or permitting of any future work, undertaking or activity.



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Conservation Projects

Habitat bank conservation projects must align with the *Fisheries Productivity Investment Policy: A Proponent's Guide to Offsetting*, November 2013.



Offsetting measures fall under 3 main categories:

1. Habitat Restoration and Enhancement *
 2. Habitat Creation *
 3. Chemical or Biological Manipulations
- Complementary Measures
 - In-kind and out-of-kind approach

* Habitat Banking is most suited for 1 and 2.

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Habitat Restoration and Enhancement



- The goal of habitat restoration and enhancement is to improve habitat function and productivity through physical manipulation of existing habitat.

- This offsetting measure is ideal in areas where habitat conditions are considered poor or degraded, and provide opportunity for the most benefit.

- ✓ River bank stabilization
- ✓ Re-vegetation of riparian areas
- ✓ Removal of anthropogenic barriers to fish migration
- ✓ Increasing shoreline complexity etc.



Habitat Creation



- Habitat creation is the development or expansion of aquatic habitat into a terrestrial area.

- This offsetting measure is generally used when fish habitat that was destroyed or degraded by a project cannot be restored by manipulation of the original or surrounding habitat



- ✓ Creation or expansion of:
 - Natural stream channels
 - Side channel habitats
 - Wetlands
 - Bays or marshes

s.19(1)



Indigenous Engagement and Consultation

- Establishment and management of a proponent-led habitat bank must include the engagement of Indigenous groups that may be affected by the proponent-led habitat bank's conservation projects and the fisheries benefits they generate.
- Aboriginal and Treaty rights must be considered in the planning and establishment of a proponent-led habitat bank, and in particular planning of the conservation projects and defining the service? area to ensure there are no resulting adverse impacts on Aboriginal or Treaty rights.

- *service area* - a geographical area or boundary that encompasses the habitat bank's conservation project that can reasonably be expected to provide appropriate offsetting .

The service area must be based on the consideration of ecological criteria, fisheries management objectives, including the survival and recovery of aquatic species at risk and, if applicable, jurisdictional boundaries. (pg 11 of guide)

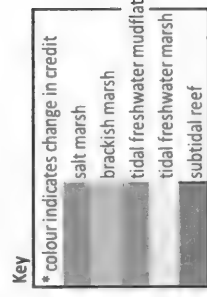
Indigenous Engagement and Consultation

- When a proponent proposes to use habitat banking credits as part of a request for an authorization, DFO must undertake consultation with potentially affected Indigenous groups regarding the proposed development project, which would include the proposed use of the habitat banking credits to meet their offsetting requirements.
- Through consultation, DFO will endeavor to understand the potential adverse impacts on asserted or established Aboriginal or Treaty rights and, where appropriate, identify ways to minimize those adverse impacts through avoidance, mitigation, or offsetting measures and incorporate those into the Authorization as conditions.

Habitat Credit Ledger

- Once approved for use, the habitat credit transaction is recorded in a habitat credit ledger; records are maintained by Proponent and DFO.

Habitat Bank:	Port Metro Vancouver Habitat Enhancement Program
Organization:	Port Metro Vancouver (PMV)
Proponent Contact:	Gord Ruffo (Program Manager, Habitat Enhancement Program, PMV)
DFO Contact:	TBD
Habitat Bank Status:	Active *see below for credit balances
Combined Credit (m2):	15,500



Documentation	Date of Documentation	PATH No. / Document Location	Prepared by	Location of Compensation	Comments	Habitat Type	Planned (m2)	Constructed (m2)	Banked (confirmed functional m2)	Debit (m2)	Total Credit (Area)
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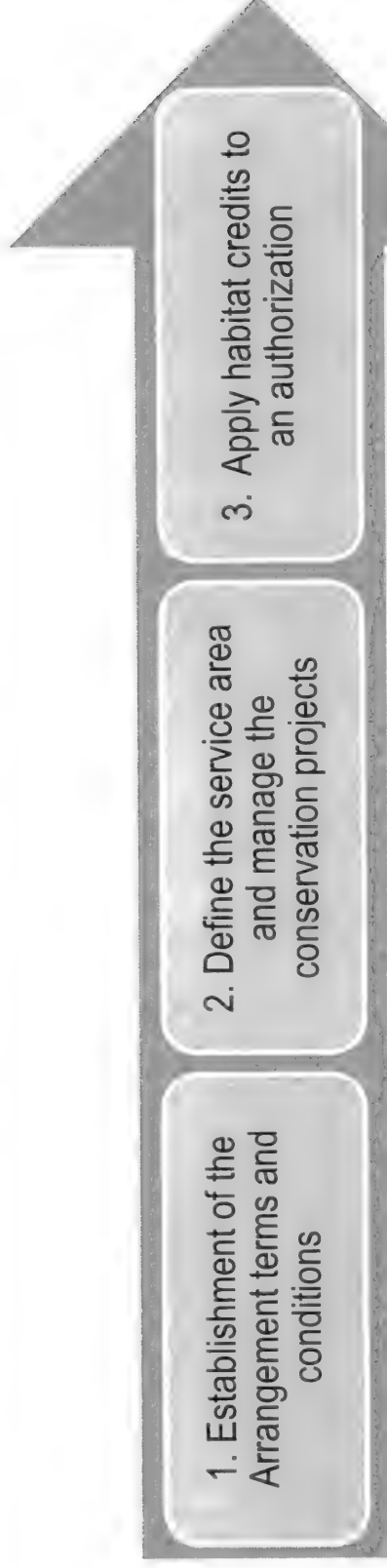
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Habitat Banking Arrangements



Habitat Banking Arrangements (HBAs)

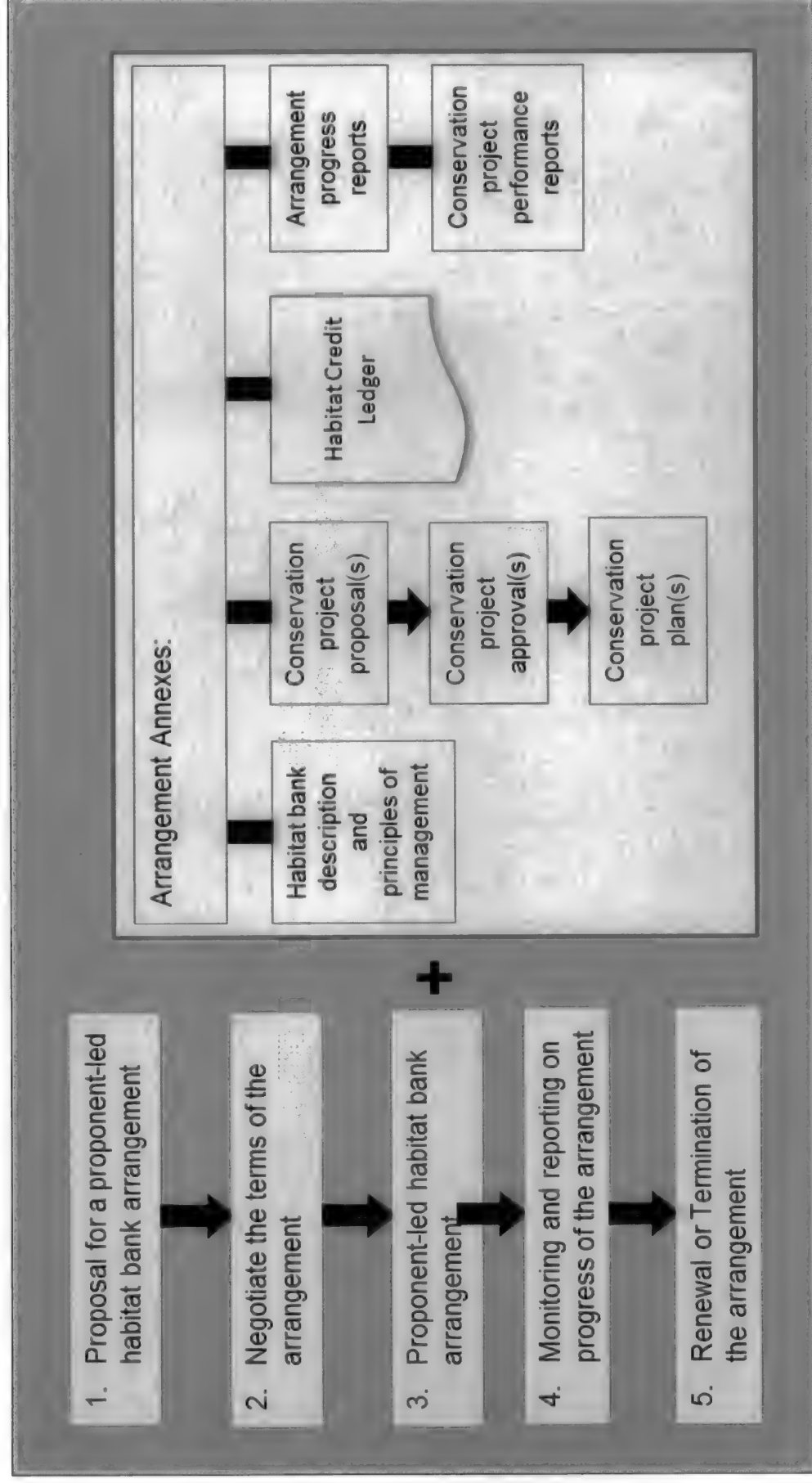
- A Habitat Banking Arrangement (HBA) between DFO and a Proponent forms the basis for the management and administration of the Habitat Bank.



- The terms and conditions of the Habitat Banking Arrangement are based on a legally-reviewed template, applicable to all proponents, for the time period specified in the Arrangement.



Process to Develop an Arrangement





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Next Steps

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Next Steps

- Receive and review feedback from Indigenous engagement sessions and address any identified concerns / issues.
- DFO and VFPA to finalize Annexes for Habitat Banking Arrangement, including the Indigenous Consultation and Engagement Plan
- DFO and VFPA enter into formal agreement as signatories to the DFO-VFPA Habitat Banking Arrangement
- VFPA to continue to operate, manage and monitor habitat banks in accordance with the Arrangement
- DFO to monitor, verify and administer proponent-led Arrangement.

Future (TBD):

- Indigenous Consultation required when DFO contemplates the issuance of an Authorization requesting use of habitat credits.



DFO Contact Information

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250-618-4268 Byron.Nutton@dfo-mpo.gc.ca
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Senior Fisheries Protection Biologist
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604-666-3512 Suzanne.Thorpe@dfo-mpo.gc.ca

Smith, Shona

From: Nutton, Byron
Sent: Friday, August 3, 2018 11:39 AM
To: Smith, Shona
Attachments: Interim_Guide_to_Proponent-led_Habitat_Banking.pdf; Interim_Guide_to_Proponent-led_Habitat_Banking.DOCX

Byron Nutton, RPBio

A/Team Lead | Chef d'équipe Intérimaire
Partnerships, Standards and Guidelines | Partenariats, Normes et lignes directrices
Fisheries Protection Program | Programme de protection des pêches
Fisheries and Oceans Canada | Pêches et Océans Canada
Pacific Region | Région du Pacifique

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Smith, Shona

From: Nutton, Byron
Sent: Friday, August 3, 2018 12:50 PM
To: Smith, Shona
Attachments: 2018-07-20_HabitatBanking_VFPA-DFO_Engagement.ppt

Follow Up Flag: Follow up
Flag Status: Completed

Byron Nutton, RPBio

A/Team Lead | Chef d'équipe Intérimaire
Partnerships, Standards and Guidelines | Partenariats, Normes et lignes directrices
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Title

Committee

Date

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Presentation Overview

1. Requirements for *Fisheries Act* Authorizations (Section 35(2)(b))
 - *Fisheries Act* Authorizations
 - Regulatory Review Process
 - Offsetting Measures
2. Proponent-Led Habitat Banking
 - Key Concepts
 - Conservation Projects
 - Indigenous Engagement and Consultation
 - Habitat Bank Tracking
3. Habitat Banking Arrangements
 - Process to Develop an Arrangement
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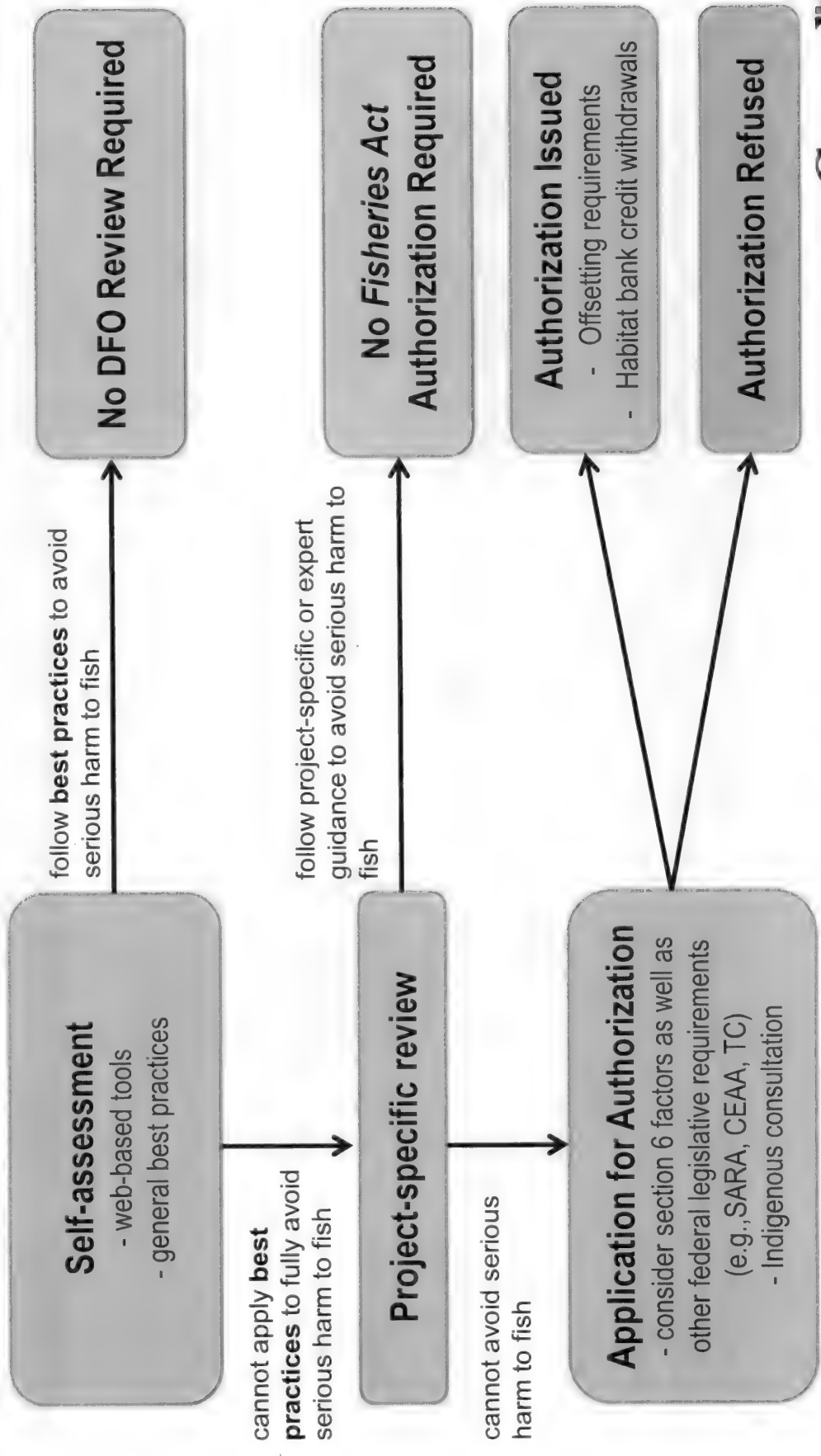
Requirements for Fisheries Act Authorizations (Section 35(2)(b))



Fisheries Act Authorizations

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Regulatory Review Process





Offsetting Measures

After efforts to avoid and mitigate impacts, residual *serious harm to fish* should be addressed by offsetting that counterbalances the *serious harm to fish* resulting from a project, with the goal of maintaining or improving fisheries productivity.



Guiding Principles:

1. Offsetting measures must support fisheries management objectives or local restoration priorities.
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4. Offsetting measure must generate self-sustaining benefits over the long term.



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Proponent-Led Habitat Banking



Key Concepts

- Formalized approach for proponents to undertake habitat improvement projects (known as “conservation projects”) to establish habitat credits that *may* be drawn upon to offset residual impacts on fish and fish habitat at a later date
- Enables proponents with multiple development projects to undertake more strategic, larger-scale conservation projects
- Useful to address the impacts from the construction, operation and long-term maintenance of components of large scale projects.
- Less uncertainty related to the effectiveness of the offsetting measures or the time required for the offsetting measures to become functional.
- A proponent-led habitat bank does not commit DFO to the authorization or permitting of any future work, undertaking or activity.



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Conservation Projects

Habitat bank conservation projects must align with the *Fisheries Productivity Investment Policy: A Proponent's Guide to Offsetting*, November 2013.



Offsetting measures fall under 3 main categories:

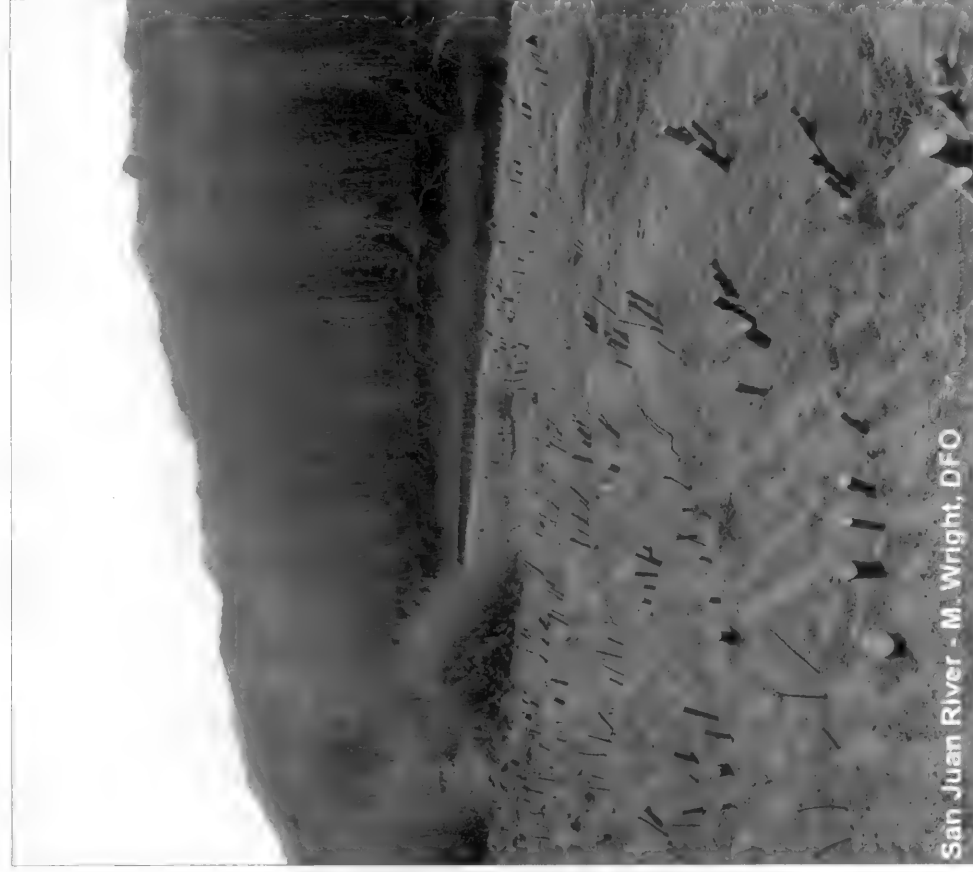
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Habitat Creation



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- Aboriginal and Treaty rights must be considered in the planning and establishment of a proponent-led habitat bank, and in particular planning the conservation projects and defining the service area to ensure there are no resulting adverse impacts on Aboriginal or Treaty rights.



Indigenous Engagement and Consultation

- When a proponent proposes to use habitat banking credits as part of a request for an authorization DFO must additionally undertake consultation with potentially affected Indigenous groups in relation to the proposed development project, including the proposed use of the habitat banking credits to meet their offsetting requirements.
- Through consultation, DFO will endeavor to understand potential adverse impacts on asserted or established Aboriginal or treaty rights and, where appropriate, identify ways to minimize those adverse impacts through avoidance, mitigation, or offsetting measures to be incorporated as conditions of Authorization.



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Habitat Ledger

- Once approved for use, the habitat credit transaction is recorded in a habitat credit ledger; records are maintained by Proponent and DFO.

Key

* colour indicates change in credit

salt marsh

brackish marsh

tidal freshwater mudflat

tidal freshwater marsh

subtidal reef

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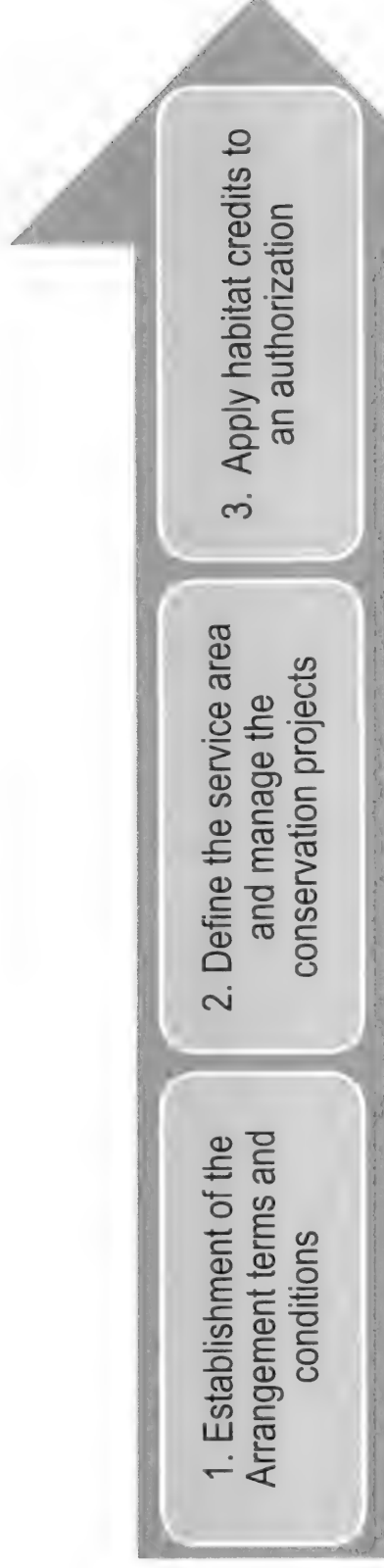
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Habitat Banking Arrangements



Habitat Banking Arrangements (HBAs)

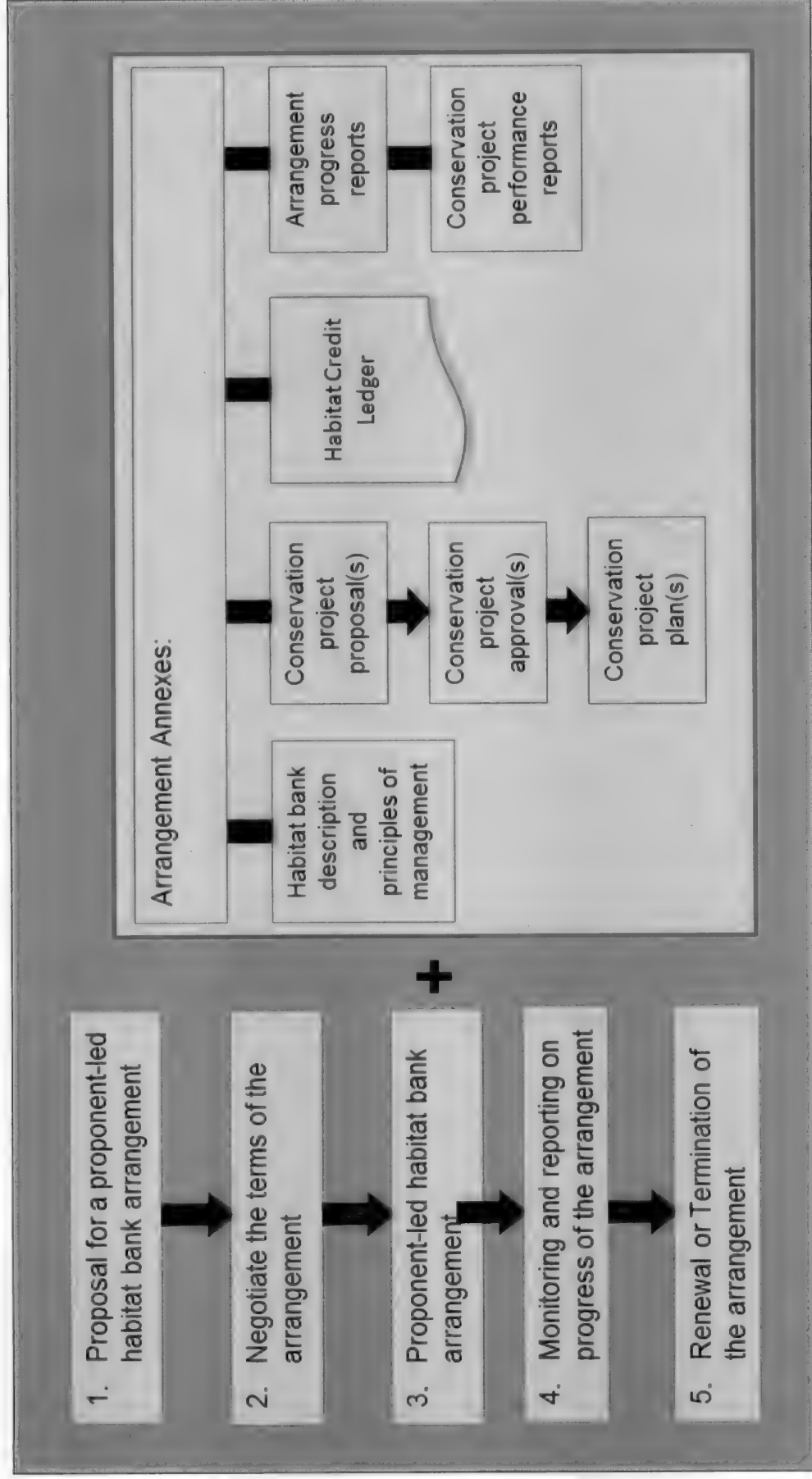
- A Habitat Banking Arrangement (HBA) between DFO and a Proponent forms the basis for the management and administration of the Habitat Bank.



- The terms and conditions of the Habitat Banking Arrangement are based on a legally-reviewed template, applicable to all proponents, for the time period specified in the Arrangement.



Process to Develop an Arrangement





Next Steps



Next Steps

- Receive and review feedback from Indigenous engagement sessions and address any identified concerns / issues.
- DFO and VFPA to finalize Annexes for Habitat Banking Arrangement, including the Indigenous Consultation and Engagement Plan
- DFO and VFPA enter into formal agreement as signatories to the DFO-VFPA Habitat Banking Arrangement
- VFPA to continue to operate, manage and monitor habitat banks in accordance with the Arrangement
- DFO to monitor, verify and administer proponent-led Arrangement.

Future (TBD):

- Indigenous Consultation required when DFO contemplates the issuance of an Authorization requesting use of habitat credits.



DFO Contact Information

1. Byron Nutton
Team Lead, Standards and Guidelines
Fisheries Protection Program, DFO
250-618-4268 Byron.Nutton@dfo-mpo.gc.ca
2. Suzanne Thorpe
Senior Fisheries Protection Biologist
Fisheries Protection Program, DFO
604-666-3512 Suzanne.Thorpe@dfo-mpo.gc.ca

Smith, Shona

From: Nutton, Byron
Sent: Friday, August 3, 2018 11:33 AM
To: Smith, Shona
Subject: FW: June 26 DFO-VFPA Meeting RE Habitat Bank Arrangement and Indigenous Engagement - Follow Up Items
Attachments: 2018-07-13-03-600-VFPA and DFO DRAFT Information Package-Rev0.pdf
Importance: High

From: Thorpe, Suzanne
Sent: 2018-July-16 1:29 PM
To: Nutton, Byron <Byron.Nutton@dfo-mpo.gc.ca>
Subject: FW: June 26 DFO-VFPA Meeting RE Habitat Bank Arrangement and Indigenous Engagement - Follow Up Items
Importance: High

Hi Byron;

I have gone through the materials provided by VFPA. Other than a couple minor items, I think the Port's materials for distribution are generally fine as is.

Comments:

- I would indicate in the cover letter that process for entering into a new arrangement is jointly-managed between VFPA-DFO, particularly since DFO intends to use the information to show engagement as part of the federal process on a spectrum of consultative processes. However, I recognize the process is generally proponent-led so I will leave it to you to determine at what level DFOs involvement will be on that spectrum.
- Consider also that there is an opportunity here to send this information out to Aboriginal groups as a joint letter from VFPA-DFO, making clear that this is part of DFOs spectrum of consultation (i.e., phase 1 engagement with regard to the VFPAs future proposed project(s)) leading (eventually) to Consultation on Authorized works with potential offsetting from a Habitat Bank).

Plus, I would suggest the following minor revisions to the letter:

- 1st paragraph: indicate that the agreement was established in 2012 for 5 years, and the agreement has been extended until 2019, with the intention of the extension being to allow for VFPA and DFO to enter into a new arrangement.
- 2nd paragraph: we may wish to indicate that the sharing of information will be with Aboriginal Groups and others (*as applicable, or as requested) on the consultation process [... this just to ensure that there is not any indicated exclusion of others ... such as a municipality if they request such information] – a bit nit-picky but letter then covers all situations the information could be used.
- 3rd paragraph: remove word “specific”.
- 5th paragraph: I would change the word consultation to engagement as a preference since this is a joint-session and DFO is not consulting (yet) – it kind of depends also on your decision re: above.
- Last paragraph: if joint letter, we should have a DFO contact.

On the package of materials:

- Recommend inclusion of a brief description of all of the HBs identified in the HEP Overview.

Suzanne

From: Caillin Katnich [mailto:Caillin.Katnich@portvancouver.com]

Sent: 2018-July-13 11:48 AM

To: Nutton, Byron

Cc: Thorpe, Suzanne; Olson, Charlotte; Ruffo, Gord

Subject: RE: June 26 DFO-VFPA Meeting RE Habitat Bank Arrangement and Indigenous Engagement - Follow Up Items

Importance: High

Hi Byron,

As a follow up to Charlotte's email below, please find attached a draft information package for Indigenous engagement regarding a new Habitat Bank Arrangement, for your review and comment. In the attached you will find the following draft documents:

- Cover letter to be sent to each Indigenous group
- Attachment 1
 - Overview of VFPA's Habitat Enhancement Program (HEP)
 - VFPA jurisdiction map
 - HEP overview map
- Attachment 2
 - Draft overview of Aboriginal engagement on habitat projects delivered for inclusion in VFPA's habitat bank
- Attachment 3
 - HEP project example: New Brighton Park Shoreline Habitat Restoration Project

Please note that, upon finalization of this content, we're planning to design this document using the style used on attachment 3, the New Brighton Park Shoreline Habitat Restoration Project overview.

If you and/or Suzanne have any questions as you review, please feel free to let Charlotte or me know.

Regards,

Caillin

Caillin Katnich

Communications Advisor

Habitat Enhancement Program



Vancouver Fraser Port Authority

100 The Pointe, 999 Canada Place

Vancouver, B.C. Canada V6C 3T4

P: 778.988.6180

portvancouver.com

From: Olson, Charlotte

Sent: July-12-18 11:29 AM

To: Nutton, Byron <Byron.Nutton@dfo-mpo.gc.ca>

Cc: Thorpe, Suzanne <Suzanne.Thorpe@dfo-mpo.gc.ca>; Caillin Katnich <Caillin.Katnich@portvancouver.com>

Subject: RE: June 26 DFO-VFPA Meeting RE Habitat Bank Arrangement and Indigenous Engagement - Follow Up Items

Hi Byron

Just a quick note – we are still on track to provide the VFPA drafted engagement content to DFO by EOD tomorrow, July 13th.

The content will be sent in draft for your review/comment next week (per our plan we discussed) – **and my colleague copied here, Caillin Katnich – will be emailing the draft content to you.**

At this time, we'd also like to confirm the prep. meeting Wed August 22nd (10am-12noon) – if that works for you Byron, can you come to Vancouver office or?

Cheers,

Charlotte Olson P.Geo., PMP
Manager, Infrastructure Habitat Development

CELL: 604.349.4111

From: Olson, Charlotte

Sent: Friday, July 06, 2018 2:06 PM

To: 'Nutton, Byron' <Byron.Nutton@dfo-mpo.gc.ca>; Thorpe, Suzanne <Suzanne.Thorpe@dfo-mpo.gc.ca>

Cc: Ruffo, Gord <Gord.Ruffo@portvancouver.com>; Scoble, Jemma <Jemma.Scoble@portvancouver.com>; Bryce, James <James.Bryce@portvancouver.com>

Subject: RE: June 26 DFO-VFPA Meeting RE Habitat Bank Arrangement and Indigenous Engagement - Follow Up Items

Importance: High

Hi Byron and Suzanne

To keep track of actions and what we discussed at our June 26 meeting (10-11am) at VFPA:

1. I've prepared a short summary of actions (first attachment). Please don't hesitate to respond if I've missed something, or captured something in error.
2. Also re-attached is the 1-page PDF of the materials we agreed to assemble (referred to in the actions list).
3. Lastly, also Byron – as requested, attached is a draft (dated July 6/18) of the proposed draft Annex's (Annex's F and G) that VFPA has prepared (to attach to draft Arrangement) – related to Indigenous engagement/consultation.
 - Annex F – pertains to DFO's consultation (using the text provided by you)
 - Annex G – pertains to VFPA's consultation (same content you have previously seen)
 - You will see in the next draft of the Arrangement (that VFPA is still working on) – the context provided for each of the proposed Annex's (per DFO's request to include)

Later next week, I will send out Calendar invites for our August meeting (Aug 21-23 TBC) – thanks for info below Byron.

Cheers

Charlotte Olson P.Geo., PMP
Manager, Infrastructure Habitat Development

CELL: 604.349.4111

s.19(1)

From: Nutton, Byron [mailto:Byron.Nutton@dfo-mpo.gc.ca]
Sent: Wednesday, June 27, 2018 12:56 PM
To: Olson, Charlotte <Charlotte.Olson@portvancouver.com>
Cc: Thorpe, Suzanne <Suzanne.Thorpe@dfo-mpo.gc.ca>
Subject: RE: June 26 DFO-VFPA Meeting RE Habitat Bank Arrangement and Indigenous Engagement

Hi Charlotte,

In follow-up to our meeting, with respect to upcoming meeting dates...

1. Suzanne and I have pencilled-in Aug 21-23 for the pre-engagement prep meeting and are waiting for you to propose a specific date/time.
2. After checking my calendar, unfortunately I am not available the week of September 17-21, but Suzanne and I have confirmed our availability for Tues-Thurs the weeks of Sep 10th and 24th, and Tues-Thurs the weeks of Oct 1st, 9th and 16th
3. I have confirmed with Tola that at this time DFO does not have any scheduled sessions for the next phase of engagement on the Fisheries Act review, but she suspects that things will be starting to happen around end of September or early October – once we have proposed dates for engagement on banking I will let her know
4. Lorigena will not be available to assist/attend at that time, but I will work with Tola to identify Indigenous engagement support as needed

Regards,

Byron

From: Olson, Charlotte [mailto:Charlotte.Olson@portvancouver.com]
Sent: 2018-June-26 4:20 PM
To: Nutton, Byron <Byron.Nutton@dfo-mpo.gc.ca>; Thorpe, Suzanne <Suzanne.Thorpe@dfo-mpo.gc.ca>
Cc: Scoble, Jemma <Jemma.Scoble@portvancouver.com>; Ruffo, Gord <Gord.Ruffo@portvancouver.com>
Subject: June 26 DFO-VFPA Meeting RE Habitat Bank Arrangement and Indigenous Engagement

Hi Byron and Suzanne, thanks again for meeting at VFPA today from 10-11am to discuss our next steps on Indigenous engagement and the status of the VFPA-DFO habitat bank arrangement.

- Attached is the document we handed out at the meeting – which summarizes our proposed info package content and approach to prepare for August 2018 distribution; so you have a digital copy.

As discussed, we will work toward our July 13 date for having our content ready, for review the following week.

Also – Byron, by early July, we will endeavor to provide you with a copy of the draft Indigenous consultation Annex (to our habitat banking arrangement), that we have been working on - as you requested.

Lastly – Suzanne, please see the below link and second PDF attachment to this email for an overview of our completed New Brighton Park Shoreline Habitat Restoration Project

<https://www.portvancouver.com/development-and-permits/development/new-brighton-park-shoreline-habitat-restoration-project/>

Cheers!

Charlotte Olson P.Geo., PMP
Manager, Infrastructure Habitat Development



Vancouver Fraser Port Authority
100 The Pointe, 999 Canada Place
Vancouver, B.C. Canada V6C 3T4

P: 604.665.9590 | CELL: 604.349.4111
portvancouver.com

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**Pages 868 to / à 885
are duplicates of
sont des duplicatas des
pages 608 to / à 625**

From: Nutton, Byron
To: Thorpe, Suzanne
Subject: Input on VFPA banking arrangement engagement material
Date: 2018-August-07 6:34:00 PM
Attachments: 2018-08-07 HabitatBanking VFPA-DFO Engagement.ppt
Importance: High

Hey Suzanne,

Can you please have a final review for editorial or formatting issues that I might have missed, and forward a final to Charlotte ASAP.

As far as their information, the cover letter:

- second paragraph: suggest change to "...VFPA **and DFO** would like to share..." without the emphasis obviously.
- list of attachments: change the last one to "Overview of Proponent-led Habitat Banking" to match title slide.

Thanks.

Ps. I am out of the office the rest of the week – back in on Monday the 13th.

Byron Nutton, RPBio

A/Team Lead | Chef d'équipe Intérimaire
Partnerships, Standards and Guidelines | Partenariats, Normes et lignes directrices
Fisheries Protection Program | Programme de protection des pêches
Fisheries and Oceans Canada | Pêches et Océans Canada
Pacific Region | Région du Pacifique

250-618-4268

Overview of Proponent-led Habitat Banking

Fisheries Protection Program Pacific Region



Presentation Outline

1. Requirements for *Fisheries Act* Authorizations
 - *Fisheries Act* Authorizations
 - Regulatory Review Process
 - Offsetting Measures
2. Proponent-Led Habitat Banking
 - Defining a Proponent-led Habitat Bank
 - Benefits of Habitat Banking
 - Indigenous Consultation
3. Habitat Banking Arrangements
 - Process to Develop an Arrangement
 - Indigenous Engagement



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Requirements for *Fisheries Act* Authorizations (Section 35(2)(b))

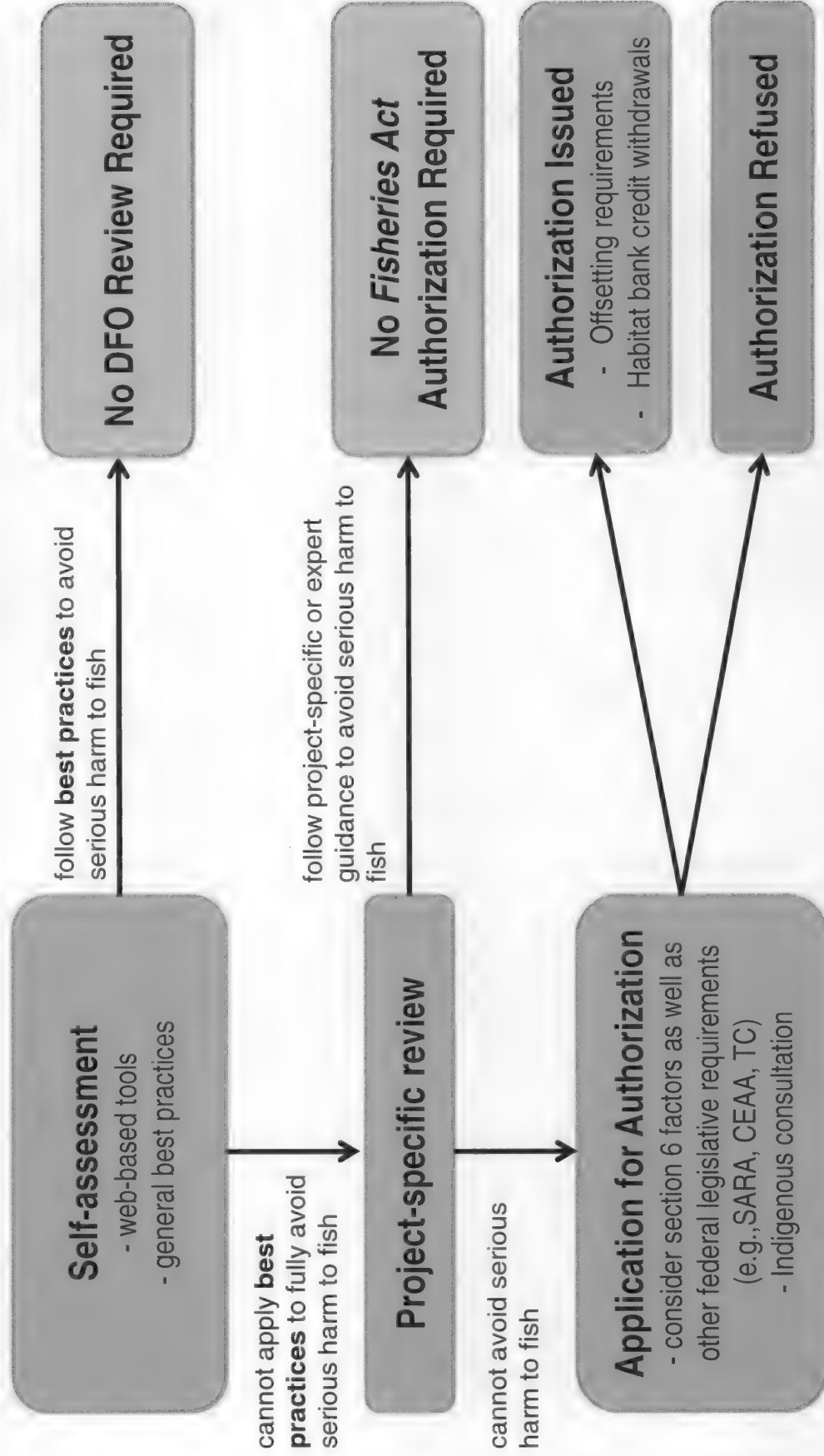


Fisheries Act Authorizations

- DFO's Fisheries Protection Program (FPP) is responsible for the administration of the fisheries protection provisions of the *Fisheries Act* (FA), and certain permitting provisions under the *Species At Risk Act* (SARA).
- Section 35 of the FA prohibits “*serious harm to fish that are part of a commercial, recreational or Aboriginal fishery, or to fish that support such a fishery.*”
- *Serious harm to fish* is defined as “*the death of fish, or any permanent alteration to or destruction of fish habitat.*”
- Proponents are responsible for avoiding and mitigating *serious harm to fish*, and when they are unable to completely avoid or mitigate *serious harm to fish* their projects will normally require an Authorization under Section 35(2) of the FA in order to proceed.



Regulatory Review Process





Offsetting Measures

After efforts to avoid and mitigate impacts, residual *serious harm to fish* should be addressed through offsetting measures. Offsetting measures are developed and implemented to counterbalance the *serious harm to fish* resulting from a project, with the goal of maintaining or improving fisheries productivity.

Guiding Principles:

1. Offsetting measures must support fisheries management objectives or local restoration priorities.
2. Benefits from offsetting measures must balance project impacts.
3. Offsetting measures must provide additional benefits to the fishery.
4. Offsetting measure must generate self-sustaining benefits over the long term.



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Proponent-Led Habitat Banking



What is a Proponent-led Habitat Bank?

- A freshwater or marine area that is a wetland, stream, lake, estuary, bay, or other aquatic resource area that has been created, restored, or enhanced by undertaking habitat improvement projects (known as “conservation projects”).
- Conservation projects would be established for the purpose of providing offsetting measures for unavoidable residual adverse effects to fish and fish habitat.
- These conservation projects take place in advance of a Proponent requesting an authorization or permit under the *Fisheries Act* and/or *Species at Risk Act*, enabling proponents to establish “habitat credits”.
- Habitat credits may be drawn upon at a later date to counterbalance or offset residual adverse effects of projects on fish and fish habitat.



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Conservation Projects

Habitat bank conservation projects must align with the *Fisheries Productivity Investment Policy: A Proponent's Guide to Offsetting*, November 2013.



Offsetting measures fall under 3 main categories:

1. Habitat Restoration and Enhancement *
 2. Habitat Creation *
 3. Chemical or Biological Manipulations
- Complementary Measures
 - In-kind and out-of-kind approach

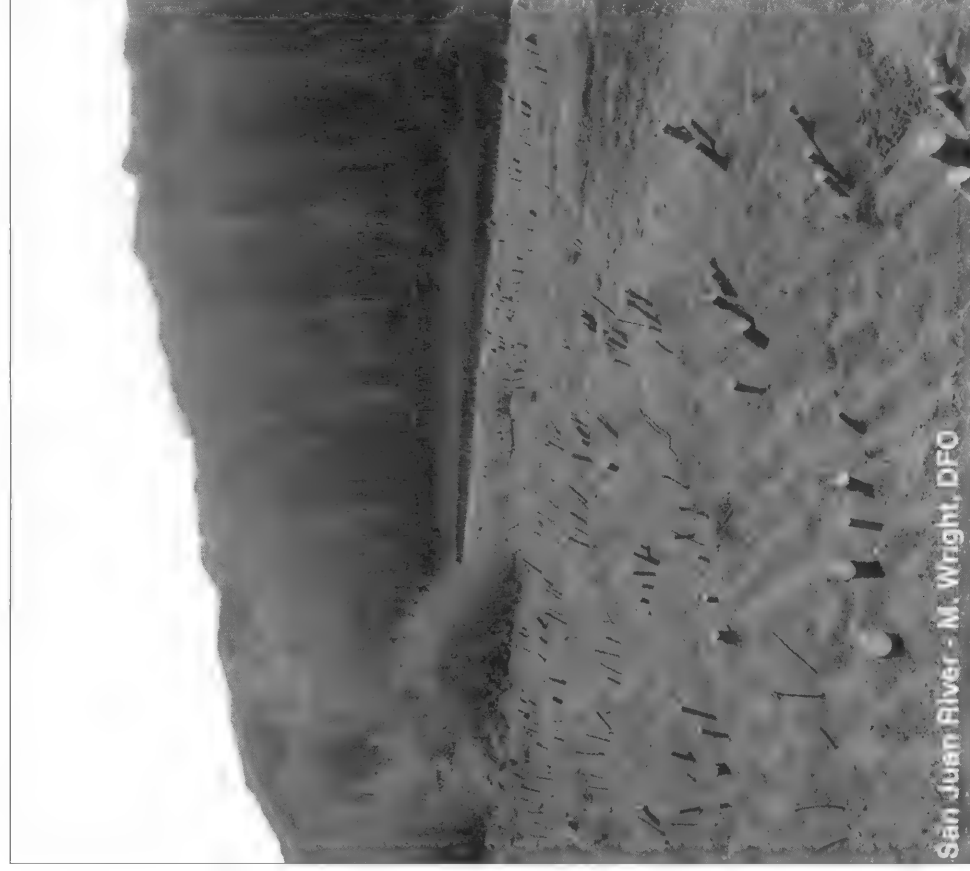
* Habitat Banking is most suited for 1 and 2.



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Habitat Restoration and Enhancement



- The goal of habitat restoration and enhancement is to improve habitat function and productivity through physical manipulation of existing habitat.
- This offsetting measure is ideal in areas where habitat conditions are considered poor or degraded, and provide opportunity for the most benefit.
 - ✓ River bank stabilization
 - ✓ Re-vegetation of riparian areas
 - ✓ Removal of anthropogenic barriers to fish migration
 - ✓ Increasing shoreline complexity etc.

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Habitat Creation



- Habitat creation is the development or expansion of aquatic habitat into a terrestrial area.
- Generally used when fish habitat that was destroyed or degraded by a project cannot be restored by manipulation of the original or surrounding aquatic habitat.

- ✓ Creation or expansion of:
 - Natural stream channels
 - Side channel habitats
 - Wetlands
 - Bays or marshes

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Habitat Credit Ledger (example)

- Once approved for use, the habitat credit transaction is recorded in a habitat credit ledger; records are maintained by Proponent and DFO.

Habitat Bank:	Habitat Bank X
Organization:	Proponent X
Proponent Contact:	Proponent Contact name
DFO Contact:	DFO Contact name
Habitat Bank Status:	Active *see below for balances
Combined Credit (m2):	16,000

* colour indicates change in credit	
	salt marsh
	brackish marsh
	tidal freshwater mudflat
	tidal freshwater marsh
	subtidal reef

Documentation	Date	File #	Location	Comments	Habitat Type	Planned (m2)	Built (m2)	Confirmed (m2)	Debit (m2)	Credit (m2)
Habitat Banking Credits for Marsh Creation	Date	XX-XXX-XXXX	Location	The credits in the habitat bank are registered in the habitat bank. Credits were given for the construction of marsh benches in Fake Park, along the Fake Arm of the Fake River.	tidal freshwater marsh	5,000	4,500	4,500		4,500
					brackish marsh	2,000	2,000	2,000		2,000
					salt marsh		500	500		500
Marine subtidal reef creation	Date	XX-XXX-XXXX	Location	Project involves the construction of three separate high-value subtidal reef areas off-shore of the mouth of the Fake River. Expected habitat credits include 9,000m2 of subtidal reef to be added to the bank.	subtidal reef	9,000				9,000
									Total:	16,000



Benefits of Habitat Banking

- ✓ Enables proponents with multiple development projects and anticipated future residual impacts on fish and fish habitat to undertake strategic, larger-scale conservation projects.
- ✓ Strategic, larger-scale conservation projects are often more likely to ensure ecosystem functions, foster biodiversity, and provide opportunities for linking fragmented habitats.
- ✓ Less uncertainty related to the proven effectiveness of the offsetting measures and/or the time required for the offsetting measures to become functional as the conservation projects are built and monitored for effectiveness in advance of impacts from the development project occurring.
- ✓ A proponent-led habitat bank does not commit DFO to the authorization or permitting of any future work, undertaking or activity.



Indigenous Consultation

- When a proponent proposes to use habitat banking credits as part of a request for an authorization, DFO must undertake consultation with potentially affected Indigenous groups in relation to the proposed development project, including the proposed use of the habitat banking credits to meet offsetting requirements.
- Through consultation, DFO will endeavor to understand potential adverse impacts on asserted or established Aboriginal or Treaty rights and, where appropriate, identify ways to minimize those adverse impacts through avoidance, mitigation, or offsetting measures to be incorporated as conditions of Authorization.



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Habitat Banking Arrangements



Habitat Banking Arrangements (HBAs)

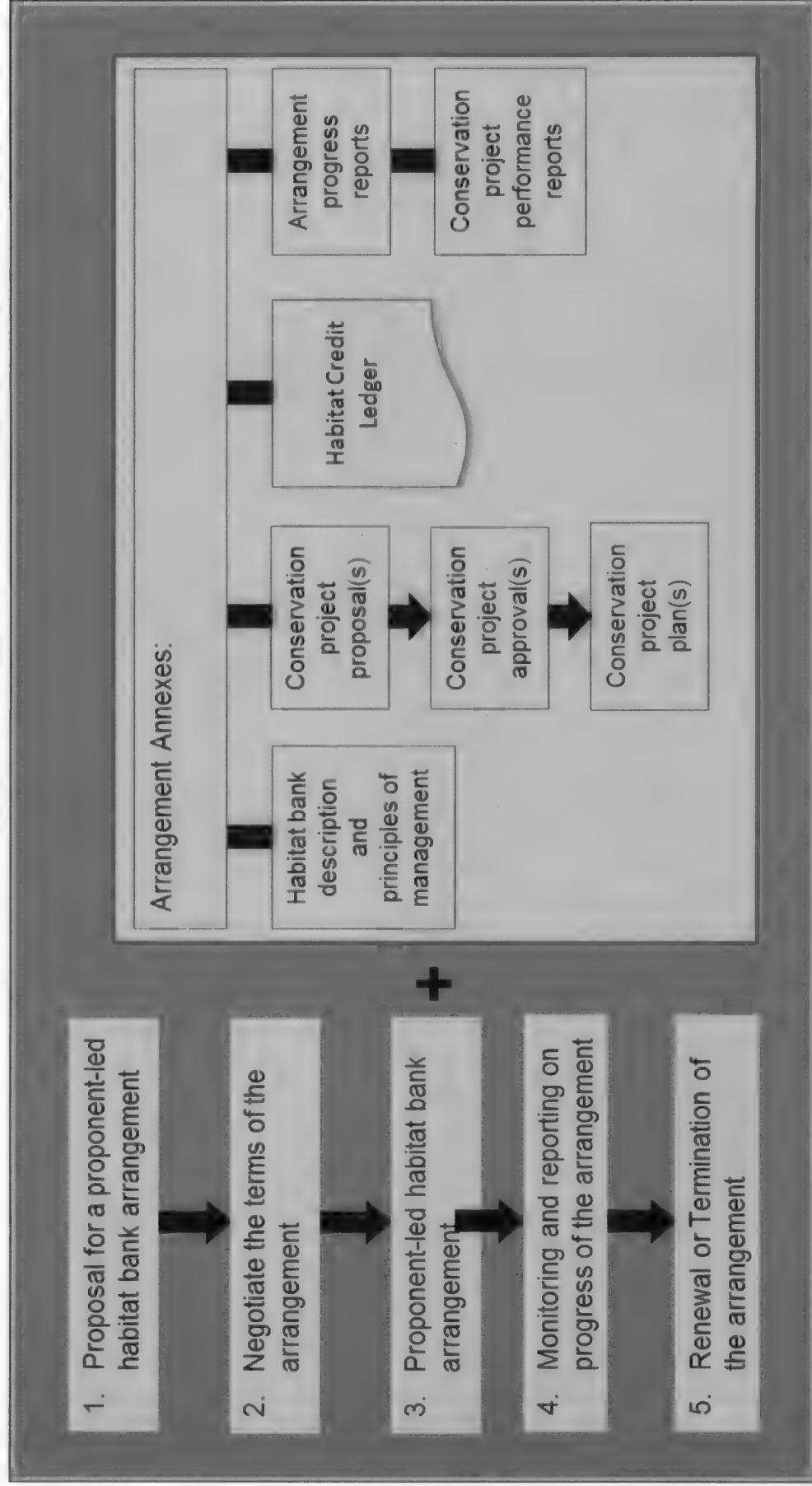
- A Habitat Banking Arrangement (HBA) between DFO and a Proponent forms the basis for the management and administration of the Habitat Bank.



- The terms and conditions of the Habitat Banking Arrangement are based on a DFO template, applicable to all proponents, for the time period specified in the Arrangement.



Process to Develop an Arrangement





Indigenous Engagement

- Establishment and management of a proponent-led habitat bank must include the engagement of Indigenous groups that may be affected by the proponent-led habitat bank's conservation projects and the fisheries benefits they generate.
- Aboriginal and Treaty rights must be considered in the planning and establishment of a proponent-led habitat bank, and in particular planning the conservation projects and defining the service area* to ensure there are no resulting adverse impacts on Aboriginal or Treaty rights.

*service area - a geographical area or boundary that encompasses the habitat bank's conservation project(s) that can reasonably be expected to provide appropriate offsetting. The service area must be based on the consideration of ecological criteria, fisheries management objectives, including the survival and recovery of aquatic species at risk and, if applicable, jurisdictional boundaries.



Questions?

Thorpe, Suzanne

From: Thorpe, Suzanne
Sent: Tuesday, August 7, 2018 11:32 AM
To: Nutton, Byron
Subject: FW: DFO Content for Indigenous Engagement Package-VFPA Comments
Attachments: 2018-07-20_HabitatBanking_VFPA-DFO_Engagement-VFPA comments.pdf

Importance: High

Hi Byron;

Were these changes incorporated into the last version of the draft deck and returned to VFPA? I don't think I received a modified copy so please LMK. I also note that the revised document will also require some graphics removal or modification to be completed.

Suzanne

From: Olson, Charlotte [mailto:Charlotte.Olson@portvancouver.com]
Sent: 2018-July-30 10:43 AM
To: Nutton, Byron; Thorpe, Suzanne
Cc: Caillin Katnich; Ruffo, Gord
Subject: FW: DFO Content for Indigenous Engagement Package-VFPA Comments
Importance: High

Hi Byron & Suzanne, just following up on this from last Monday, are you able to make these suggested edits to your draft deck and send back to VFPA so we can finalize our package?

Please let me know how we can assist, we can make the edits if that would be helpful – just let us know!

The rest of the package is ready to be sent out in early August per our plan.

Thx!

Charlotte Olson P.Geo., PMP
Manager, Infrastructure Habitat Development

CELL: 604.349.4111

From: Olson, Charlotte
Sent: Monday, July 23, 2018 3:32 PM
To: 'Nutton, Byron' <Byron.Nutton@dfo-mpo.gc.ca>
Cc: Caillin Katnich <Caillin.Katnich@portvancouver.com>; Ruffo, Gord <Gord.Ruffo@portvancouver.com>; Thorpe, Suzanne <Suzanne.Thorpe@dfo-mpo.gc.ca>
Subject: RE: DFO Content for Indigenous Engagement Package-VFPA Comments

Hi Byron, in follow up to my note below.

Thanks for providing your material for our upcoming consultation on our Arrangement for Habitat Banking. We have reviewed this document and have provided a marked-up version with our comments (attached). Most of the comments are self-explanatory but here is some added detail on our comments:

1. The Habitat Ledger should be presented as a “sample” and as such, references to VFPA (or PMV) should be removed so it is a generic ledger. It is important that it is clear that this is not VFPA’s ledger. Also, the slide included references to MOU’s which probably should be changed to “Arrangements”. Also, the first two entries

are not ledger items that we would use; is this intended to show how DFO tracks administrative items related to the bank?

2. We suggest deleting the "Next Steps" section as the covering letter provides the details on the process that is being used.
3. We suggest deleting "DFO Contact Information" at this time as we identified Jemma Scoble as the contact person for this engagement process we are embarking on. If we can keep all correspondence going to Jemma through this process, she can ensure that our consultation records are complete.

Caillin Katnich from our team will be preparing a single PDF package shortly so you can see how the package will look. We are including your current draft document but recognize that edits will be made.

Can you please make these edits we suggest here, and send your content back to us asap?

We remain on track for completing this consultation package by the end of this week (Friday, July 27) if so.

Thanks for your efforts on this!

Charlotte

Charlotte Olson P.Geo., PMP
Manager, Infrastructure Habitat Development

CELL: 604.349.4111

From: Olson, Charlotte

Sent: Monday, July 23, 2018 10:35 AM

To: 'Nutton, Byron' <Byron.Nutton@dfo-mpo.gc.ca>

Cc: Caillin Katnich <Caillin.Katnich@portvancouver.com>; Ruffo, Gord <Gord.Ruffo@portvancouver.com>; Thorpe, Suzanne <Suzanne.Thorpe@dfo-mpo.gc.ca>

Subject: RE: DFO Content for Indigenous Engagement Package-update?

Thanks Byron for sending this DFO-prepared content. We will take a look.

Per our discussion, and in alignment with what we sent you on July 13th – for format, we are proposing a letter + Attachment package. We have prepared the letter and the first 3 Attachments, and you have just sent your content for Attachment 4. On our end, we will "lay-out" the content as a final draft PDF package (with cover sheets for the 4 Attachments) and send back to you for a look, I expect we can have this to you tomorrow.

Thanks,

Charlotte Olson P.Geo., PMP
Manager, Infrastructure Habitat Development

CELL: 604.349.4111

From: Nutton, Byron [<mailto:Byron.Nutton@dfo-mpo.gc.ca>]

Sent: Saturday, July 21, 2018 4:23 PM

To: Olson, Charlotte <Charlotte.Olson@portvancouver.com>

Cc: Caillin Katnich <Caillin.Katnich@portvancouver.com>; Ruffo, Gord <Gord.Ruffo@portvancouver.com>; Thorpe, Suzanne <Suzanne.Thorpe@dfo-mpo.gc.ca>

Subject: RE: DFO Content for Indigenous Engagement Package-update?

Hi Charlotte.

Our network was down yesterday so couldn't send – thanks for your on-going patience.

Please see attached draft DFO content – comments, suggestions, etc. welcomed.

We still need to figure out the best way to present (format) your and our information.

Cheers,

Byron

From: Olson, Charlotte [<mailto:Charlotte.Olson@portvancouver.com>]

Sent: 2018–July-19 12:20 PM

To: Nutton, Byron <Byron.Nutton@dfo-mpo.gc.ca>; Thorpe, Suzanne <Suzanne.Thorpe@dfo-mpo.gc.ca>

Cc: Caillin Katnich <Caillin.Katnich@portvancouver.com>; Ruffo, Gord <Gord.Ruffo@portvancouver.com>

Subject: RE: DFO Content for Indigenous Engagement Package-update?

Hi Byron & Suzanne, just checking in on this? I am away for the day on Vancouver Island tomorrow, do we expect to receive DFO's content today or?

If received tomorrow, we will aim to review and finalize the package next week – in order to stay on our proposed schedule of getting this package out in early August.

Please send any comments on what we already sent you July 13th.

Thanks!

Charlotte Olson P.Geo., PMP
Manager, Infrastructure Habitat Development

CELL: 604.349.4111

From: Nutton, Byron [<mailto:Byron.Nutton@dfo-mpo.gc.ca>]

Sent: Tuesday, July 17, 2018 8:42 AM

To: Olson, Charlotte <Charlotte.Olson@portvancouver.com>

Cc: Thorpe, Suzanne <Suzanne.Thorpe@dfo-mpo.gc.ca>; Caillin Katnich <Caillin.Katnich@portvancouver.com>

Subject: RE: June 26 DFO-VFPA Meeting RE Habitat Bank Arrangement and Indigenous Engagement - Follow Up Items

Hi again Charlotte,

Yesterday did not unfold as expected and I am in a meeting most of today, but will have it to you later this evening.

Regards,

Byron

From: Nutton, Byron

Sent: 2018–July-13 11:32 AM

To: 'Olson, Charlotte' <Charlotte.Olson@portvancouver.com>

Cc: Thorpe, Suzanne <Suzanne.Thorpe@dfo-mpo.gc.ca>; Caillin Katnich <Caillin.Katnich@portvancouver.com>

Subject: RE: June 26 DFO-VFPA Meeting RE Habitat Bank Arrangement and Indigenous Engagement - Follow Up Items

In the last couple days I haven't had a chance to dig into the stuff that Suzanne prepared while I was away, but based on a quick overview it is very close. I will get through it and send you a draft on Monday.

I am good for the 22nd and will come to Vancouver.

I'll leave it with Suzanne to confirm as well, but I know we had pencilled in the 21st-23rd so expect it will still work for her as well.

Cheers,

Byron

From: Olson, Charlotte [mailto:Charlotte.Olson@portvancouver.com]

Sent: 2018-July-12 11:29 AM

To: Nutton, Byron <Byron.Nutton@dfo-mpo.gc.ca>

Cc: Thorpe, Suzanne <Suzanne.Thorpe@dfo-mpo.gc.ca>; Caillin Katnich <Caillin.Katnich@portvancouver.com>

Subject: RE: June 26 DFO-VFPA Meeting RE Habitat Bank Arrangement and Indigenous Engagement - Follow Up Items

Hi Byron

Just a quick note – we are still on track to provide the VFPA drafted engagement content to DFO by EOD tomorrow, July 13th.

The content will be sent in draft for your review/comment next week (per our plan we discussed) – **and my colleague copied here, Caillin Katnich – will be emailing the draft content to you.**

At this time, we'd also like to confirm the prep. meeting Wed August 22nd (10am-12noon) – if that works for you Byron, can you come to Vancouver office or?

Cheers,

Charlotte Olson P.Geo., PMP
Manager, Infrastructure Habitat Development

CELL: 604.349.4111

From: Olson, Charlotte

Sent: Friday, July 06, 2018 2:06 PM

To: 'Nutton, Byron' <Byron.Nutton@dfo-mpo.gc.ca>; Thorpe, Suzanne <Suzanne.Thorpe@dfo-mpo.gc.ca>

Cc: Ruffo, Gord <Gord.Ruffo@portvancouver.com>; Scoble, Jemma <Jemma.Scoble@portvancouver.com>; Bryce, James <James.Bryce@portvancouver.com>

Subject: RE: June 26 DFO-VFPA Meeting RE Habitat Bank Arrangement and Indigenous Engagement - Follow Up Items

Importance: High

Hi Byron and Suzanne

To keep track of actions and what we discussed at our June 26 meeting (10-11am) at VFPA:

1. I've prepared a short summary of actions (first attachment). Please don't hesitate to respond if I've missed something, or captured something in error.
2. Also re-attached is the 1-page PDF of the materials we agreed to assemble (referred to in the actions list).
3. Lastly, also Byron – as requested, attached is a draft (dated July 6/18) of the proposed draft Annex's (Annex's F and G) that VFPA has prepared (to attach to draft Arrangement) – related to Indigenous engagement/consultation.
 - Annex F – pertains to DFO's consultation (using the text provided by you)

- Annex G – pertains to VFPA's consultation (same content you have previously seen)
- You will see in the next draft of the Arrangement (that VFPA is still working on) – the context provided for each of the proposed Annex's (per DFO's request to include)

Later next week, I will send out Calendar invites for our August meeting (Aug 21-23 TBC) – thanks for info below Byron.

Cheers,

Charlotte Olson P.Geo., PMP
Manager, Infrastructure Habitat Development

CELL: 604.349.4111

From: Nutton, Byron [mailto:Byron.Nutton@dfo-mpo.gc.ca]
Sent: Wednesday, June 27, 2018 12:56 PM
To: Olson, Charlotte <Charlotte.Olson@portvancouver.com>
Cc: Thorpe, Suzanne <Suzanne.Thorpe@dfo-mpo.gc.ca>
Subject: RE: June 26 DFO-VFPA Meeting RE Habitat Bank Arrangement and Indigenous Engagement

Hi Charlotte,

In follow-up to our meeting, with respect to upcoming meeting dates...

1. Suzanne and I have pencilled-in Aug 21-23 for the pre-engagement prep meeting and are waiting for you to propose a specific date/time.
2. After checking my calendar, unfortunately I am not available the week of September 17-21, but Suzanne and I have confirmed our availability for Tues-Thurs the weeks of Sep 10th and 24th, and Tues-Thurs the weeks of Oct 1st, 9th and 16th
3. I have confirmed with Tola that at this time DFO does not have any scheduled sessions for the next phase of engagement on the Fisheries Act review, but she suspects that things will be starting to happen around end of September or early October – once we have proposed dates for engagement on banking I will let her know
4. Lorigena will not be available to assist/attend at that time, but I will work with Tola to identify Indigenous engagement support as needed

Regards,

s.19(1)

Byron

From: Olson, Charlotte [mailto:Charlotte.Olson@portvancouver.com]
Sent: 2018-June-26 4:20 PM
To: Nutton, Byron <Byron.Nutton@dfo-mpo.gc.ca>; Thorpe, Suzanne <Suzanne.Thorpe@dfo-mpo.gc.ca>
Cc: Scoble, Jemma <Jemma.Scoble@portvancouver.com>; Ruffo, Gord <Gord.Ruffo@portvancouver.com>
Subject: June 26 DFO-VFPA Meeting RE Habitat Bank Arrangement and Indigenous Engagement

Hi Byron and Suzanne, thanks again for meeting at VFPA today from 10-11am to discuss our next steps on Indigenous engagement and the status of the VFPA-DFO habitat bank arrangement.

- Attached is the document we handed out at the meeting – which summarizes our proposed info package content and approach to prepare for August 2018 distribution, so you have a digital copy.

As discussed, we will work toward our July 13 date for having our content ready, for review the following week.

Also – Byron, by early July, we will endeavor to provide you with a copy of the draft Indigenous consultation Annex (to our habitat banking arrangement), that we have been working on - as you requested.

Lastly – Suzanne, please see the below link and second PDF attachment to this email for an overview of our completed New Brighton Park Shoreline Habitat Restoration Project

<https://www.portvancouver.com/development-and-permits/development/new-brighton-park-shoreline-habitat-restoration-project/>

Cheers!

Charlotte Olson P.Geo., PMP
Manager, Infrastructure Habitat Development



Vancouver Fraser Port Authority
100 The Pointe, 999 Canada Place
Vancouver, B.C. Canada V6C 3T4

P: 604.665.9590 | CELL: 604.349.4111
portvancouver.com

No information has been removed or severed from this page



→ this title was used in
the covering letter

Overview of Offsetting with Habitat Banks

Title

Committee

Date

Delete

To remove SECRET:

- Click View
- Click Slide Master
- Select text box on (title and other slides) and hit delete
- On the View menu, click Normal to return to editing

Delete



Presentation Overview

1. Requirements for *Fisheries Act* Authorizations (Section 35(2)(b))
 - *Fisheries Act* Authorizations
 - Regulatory Review Process
 - Offsetting Measures
2. Proponent-Led Habitat Banking
 - Key Concepts Aspects of Habitat Banking
 - Conservation Projects
 - Indigenous Engagement and Consultation
 - Habitat Bank Tracking
3. Habitat Banking Arrangements
 - Process to Develop an Arrangement

4. Next Steps

- Delete as the covering letter describes the process being used



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Canada

No comment

Requirements for Fisheries Act Authorizations (Section 35(2)(b))



No comment

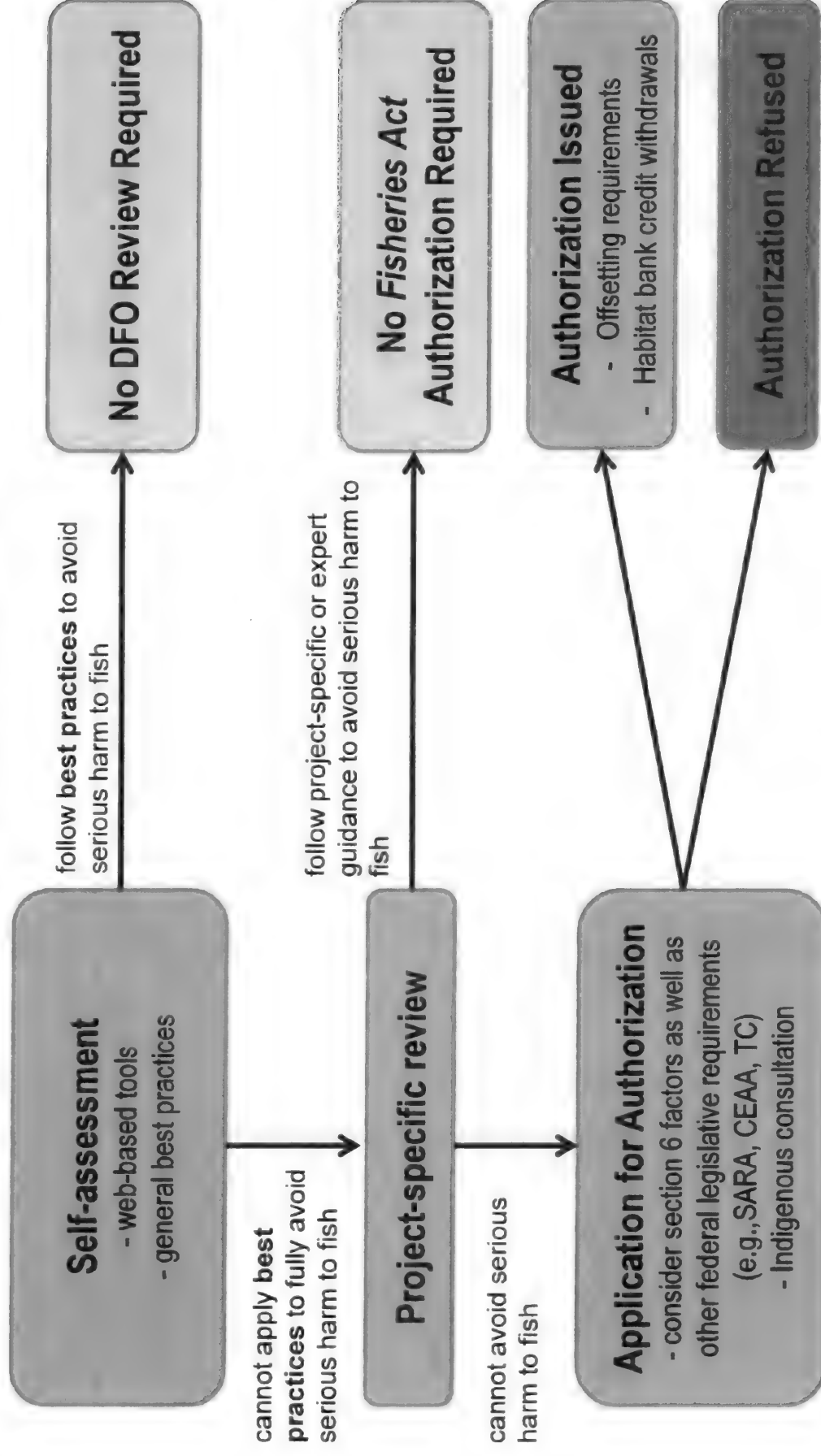
Fisheries Act Authorizations

- DFO's Fisheries Protection Program (FPP) is responsible for the administration of the fisheries protection provisions of the *Fisheries Act* (FA), and certain permitting provisions under the *Species At Risk Act* (SARA).
- Section 35 of the FA prohibits "*serious harm to fish that are part of a commercial, recreational or Aboriginal fishery, or to fish that support such a fishery.*"
- *Serious harm to fish* is defined as "*the death of fish, or any permanent alteration to or destruction of fish habitat*".
- Proponents are responsible for avoiding and mitigating *serious harm to fish*, and when they are unable to completely avoid or mitigate *serious harm to fish* their projects will normally require an Authorization under Section 35(2) of the FA in order to proceed.



No Comment

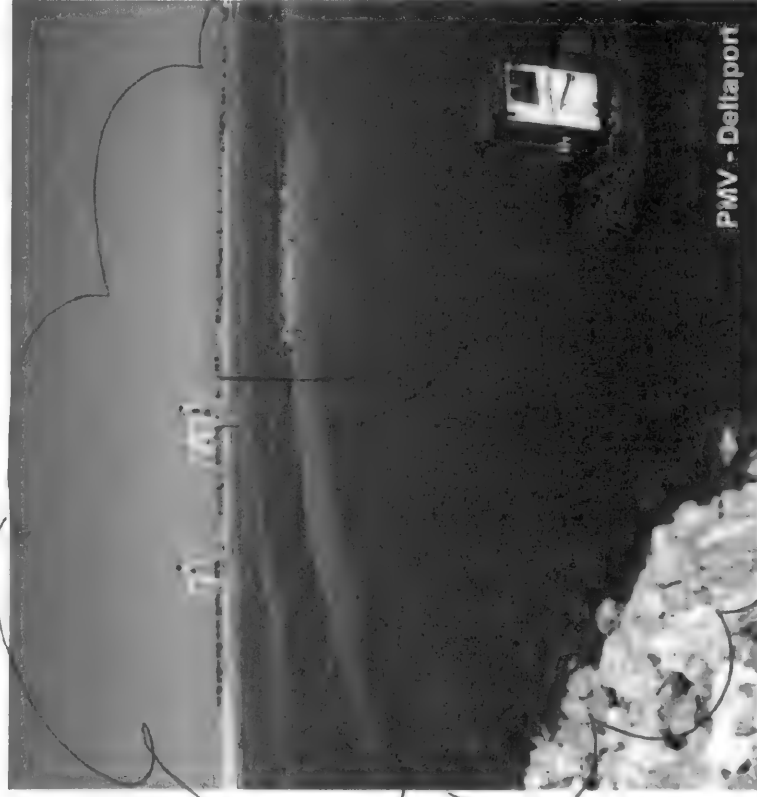
Regulatory Review Process





Offsetting Measures

After efforts to avoid and mitigate impacts, residual *serious harm to fish* should be addressed by offsetting that counterbalances the *serious harm to fish* resulting from a project, with the goal of maintaining or improving fisheries productivity.



Guiding Principles:

1. Offsetting measures must support fisheries management objectives or local restoration priorities.
2. Benefits from offsetting measures must balance project impacts.
3. Offsetting measures must provide additional benefits to the fishery.
4. Offsetting measure must generate self-sustaining benefits over the long term.

Canada

6

↳ Replace or remove as photo is

unclear on what is being shown.



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Canada

No comment

Proponent-Led Habitat Banking



Aspects of Habitat Banking

Key Concepts

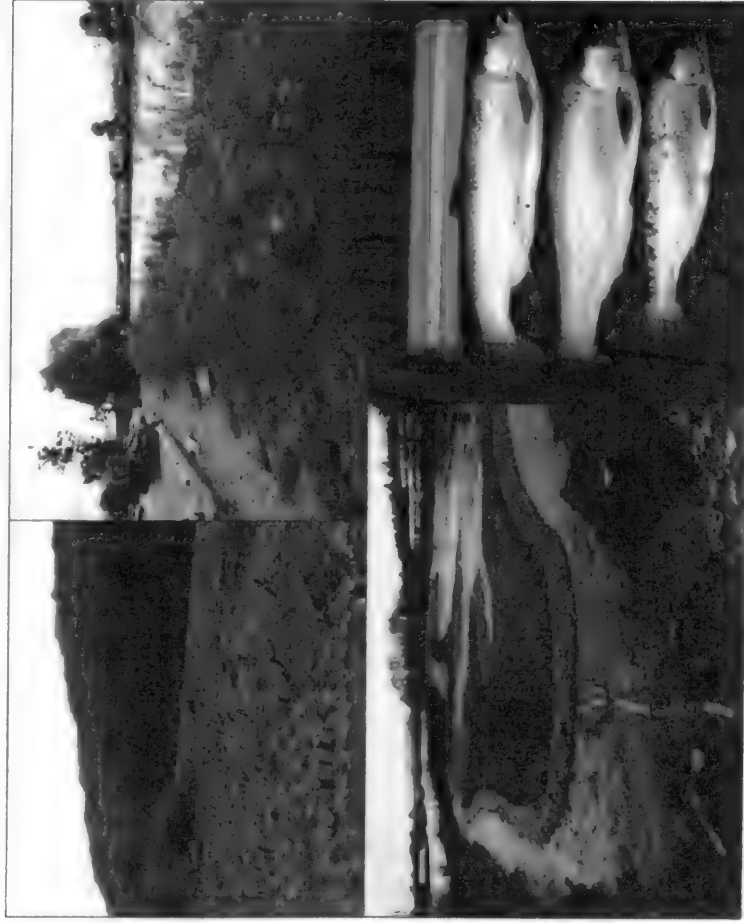
- Formalized approach for proponents to undertake habitat improvement projects (known as “conservation projects”) to establish habitat credits that *may* be drawn upon to offset residual impacts on fish and fish habitat at a later date
- Enables proponents with multiple development projects to undertake more strategic, larger-scale conservation projects
- Useful to address the impacts from the construction, operation and long-term maintenance of components of large scale projects.
- Less uncertainty related to the effectiveness of the offsetting measures or the time required for the offsetting measures to become functional.
- A proponent-led habitat bank does not commit DFO to the authorization or permitting of any future work, undertaking or activity.



No comment

Conservation Projects

Habitat bank conservation projects must align with the *Fisheries Productivity Investment Policy: A Proponent's Guide to Offsetting*, November 2013.



Offsetting measures fall under 3 main categories:

1. Habitat Restoration and Enhancement *
 2. Habitat Creation *
 3. Chemical or Biological Manipulations
- Complementary Measures
 - In-kind and out-of-kind approach

* Habitat Banking is most suited for 1 and 2.

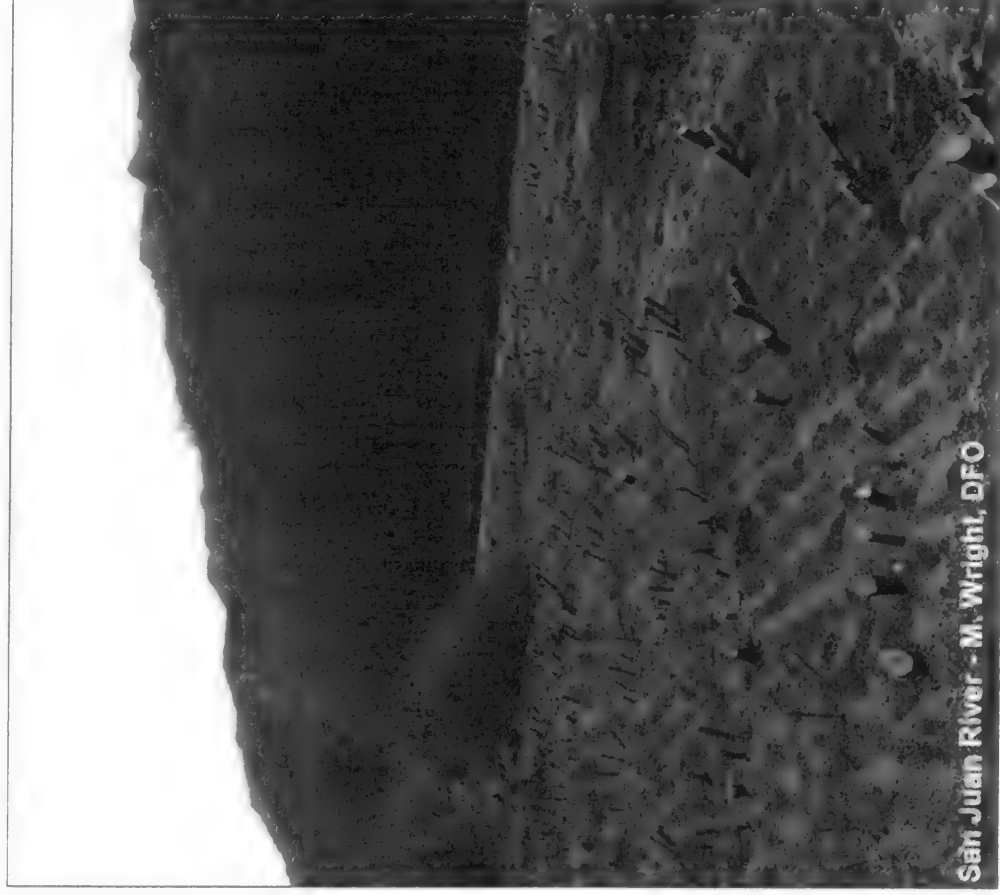


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No Comment

Habitat Restoration and Enhancement



- The goal of habitat restoration and enhancement is to improve habitat function and productivity through physical manipulation of existing habitat.

- This offsetting measure is ideal in areas where habitat conditions are considered poor or degraded, and provide opportunity for the most benefit.

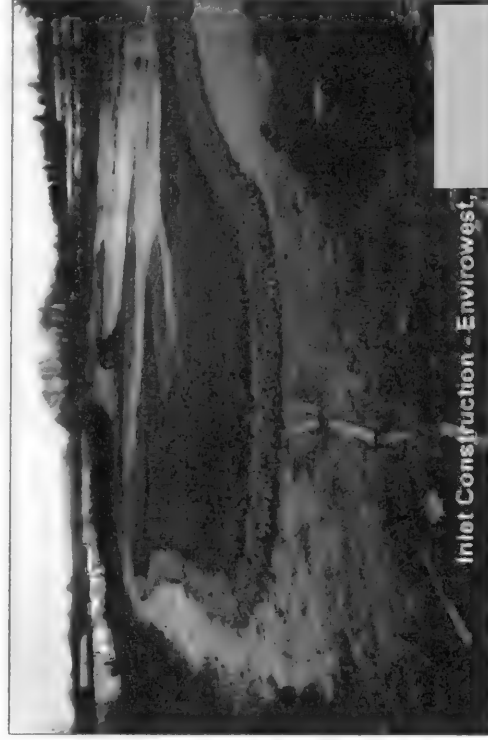
- ✓ River bank stabilization
- ✓ Re-vegetation of riparian areas
- ✓ Removal of anthropogenic barriers to fish migration
- ✓ Increasing shoreline complexity etc.

Canada



No Comment

Habitat Creation



- Habitat creation is the development or expansion of aquatic habitat into a terrestrial area.
- This offsetting measure is generally used when productivity that was destroyed or degraded by a project cannot be restored by manipulation of the original or surrounding aquatic habitat
- ✓ Creation or expansion of:
 - Natural stream channels
 - Side channel habitats
 - Wetlands
 - Bays or marshes

s.19(1)



Indigenous Engagement and Consultation

- Establishment and management of a proponent-led habitat bank ^{spelling} must include the engagement of Indigenous groups that may be affected by the proponent-led habitat bank's conservation projects and the fisheries benefits they generate.

- Aboriginal and Treaty rights must be considered in the planning and establishment of a proponent-led habitat bank, and in particular planning the conservation projects and defining the service area to ensure there are no resulting adverse impacts on Aboriginal or Treaty rights.



Indigenous Engagement and Consultation

- When a proponent proposes to use habitat banking credits as part of a request for an authorization DFO must additionally undertake consultation with potentially affected Indigenous groups in relation to the proposed development project, including the proposed use of the habitat banking credits to meet their offsetting requirements.
- Through consultation, DFO will endeavor to understand potential adverse impacts on asserted or established Aboriginal or treaty rights and, where appropriate, identify ways to minimize those adverse impacts through avoidance, mitigation, or offsetting measures to be incorporated as conditions of Authorization.

Habitat Ledger (sample)

- Once approved for use, the habitat credit transaction is recorded in a habitat credit ledger; records are maintained by Proponent and DFO.

Habitat Bank:
Organization:
Proponent Contact:
DFO Contact:
Habitat Bank Status:
Combined Credit (m2):

Proposed Approach for Determining Net Habitat Banking Credits

MOU discusses the establishment of a habitat compensation bank for credits accumulated from the development of aquatic habitats.

Habitat Credit Valuation process proposed for multiple proposed habitat banks

The credits in the habitat bank are registered in the habitat bank. Credits were given for the construction of marsh benches in Fake Park, along the North Arm of the Fake Arm of the Fake River.

Project involves the construction of three separate high-value subtidal reef areas off-shore of Zero Arm and south of the 44 Jetty. Expected habitat credits include 9,000m2 of subtidal reef to be added to the bank.

Proposed Approach for Determining Net Habitat Banking Credits

MOU discusses the establishment of a habitat compensation bank for credits accumulated from the development of aquatic habitats.

Habitat Credit Valuation process proposed for multiple proposed habitat banks

The credits in the habitat bank are registered in the habitat bank. Credits were given for the construction of marsh benches in Fake Park, along the North Arm of the Fake Arm of the Fake River.

Project involves the construction of three separate high-value subtidal reef areas off-shore of Zero Arm and south of the 44 Jetty. Expected habitat credits include 9,000m2 of subtidal reef to be added to the bank.

Key

• colour indicates change in credit

salt marsh

brackish marsh

tidal freshwater mudflat

tidal freshwater marsh

subtidal reef

Can these two lines be deleted?

Documentation	Date of Documentation	PATH No. / Document Location	Prepared by	Location of Compensation	Comments	Habitat Type	Planned (m2)	Constructed (m2)	Banked (confirmed functional m2)	Debit (m2)	Total Credit (Area)
<div>MOU Habitat Banking Agreement between DFO and Proponent</div> <div>Proposed Approach for Determining Net Habitat Banking Credits</div>	TBC	XX-XXX-XXXX	DFO/ WIPA		MOU discusses the establishment of a habitat compensation bank for credits accumulated from the development of aquatic habitats.						
Habitat Banking Credits for Marsh Creation	July 2018	XX-XXX-XXXX	WIPA/ 123 Consultants		Habitat Credit Valuation process proposed for multiple proposed habitat banks						
Habitat Banking Credits for Marsh Creation	August 2018	XX-XXX-XXXX	WIPA	Fake Park, Fake Arm - Fake River	The credits in the habitat bank are registered in the habitat bank. Credits were given for the construction of marsh benches in Fake Park, along the North Arm of the Fake Arm of the Fake River.	tidal freshwater marsh	5,000	4,500	5,000		4,500
						brackish marsh	2,000	2,500	2,000		2,500
						salt marsh		500	500		500
Marine subtidal reef creation	August 2018	XX-XXX-XXXX	456 Consultants	Zero Arm, No River	Project involves the construction of three separate high-value subtidal reef areas off-shore of Zero Arm and south of the 44 Jetty. Expected habitat credits include 9,000m2 of subtidal reef to be added to the bank.	subtidal reef	9,000				9,000
										Total all types:	16,500



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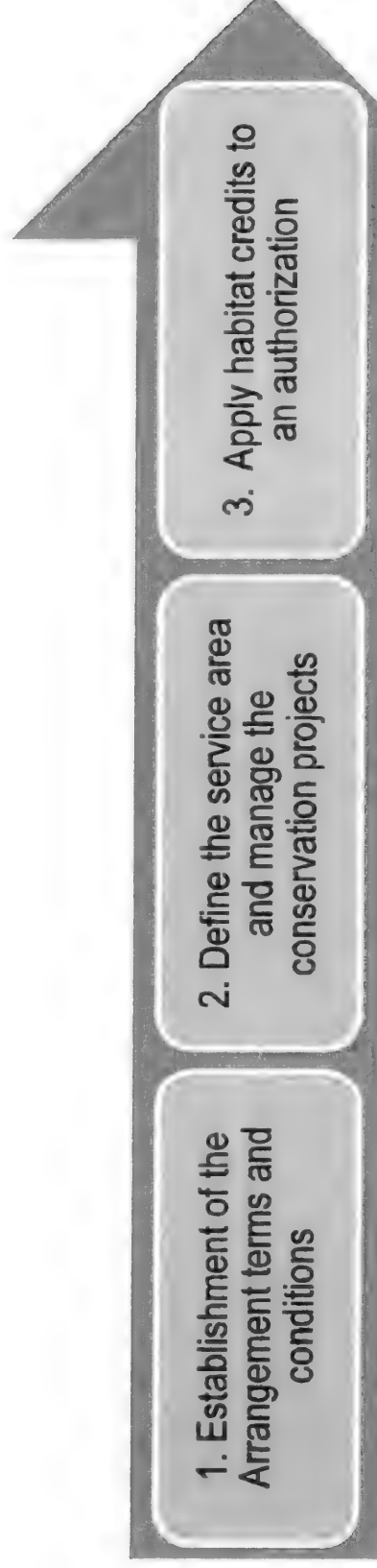
No comment

Habitat Banking Arrangements



Habitat Banking Arrangements (HBAs)

- A Habitat Banking Arrangement (HBA) between DFO and a Proponent forms the basis for the management and administration of the Habitat Bank.

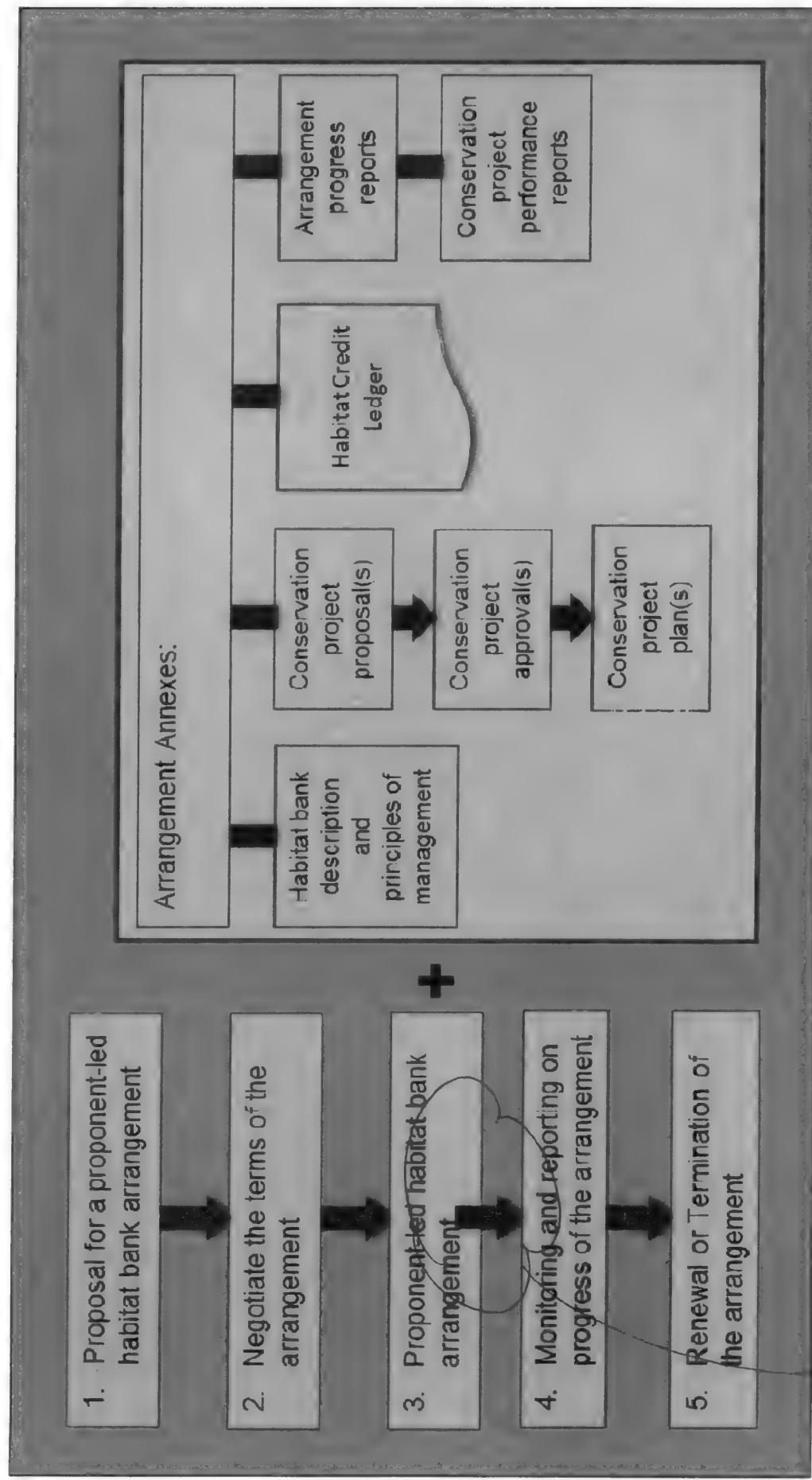


- The terms and conditions of the Habitat Banking Arrangement are based on a ~~legally-reviewed~~ template, applicable to all proponents, for the time period specified in the Arrangement.

→ DFO-issued template & guidance document.



Process to Develop an Arrangement



For setting up de services 17



→ Delete - the covering
slide letter provides
the process that
is being used

Next Steps



Delte - the covering
slide letter provides
the process
being used

Next Steps

- Receive and review feedback from Indigenous engagement sessions and address any identified concerns / issues.
 - DFO and VFPA to finalize Annexes for Habitat Banking Arrangement, including the Indigenous Consultation and Engagement Plan
 - DFO and VFPA enter into formal agreement as signatories to the DFO-VFPA Habitat Banking Arrangement
 - VFPA to continue to operate, manage and monitor habitat banks in accordance with the Arrangement
 - DFO to monitor, verify and administer proponent-led Arrangement.
- Future (TBD):
- Indigenous Consultation required when DFO contemplates the issuance of an Authorization requesting use of habitat credits.



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Canada

DFO Contact Information

1. Byron Nutton
Team Lead, Standards and Guidelines
Fisheries Protection Program, DFO
250-618-4268 Byron.Nutton@dfo-mpo.gc.ca
2. Suzanne Thorpe
Senior Fisheries Protection Biologist
Fisheries Protection Program, DFO
604-666-3512 Suzanne.Thorpe@dfo-mpo.gc.ca

→ Delete: the covering letter provides Jenna Scoble
Slide as the contact person. It is important
to have a single-point contact ahead of
the consultation period.

Thorpe, Suzanne

From: Thorpe, Suzanne
Sent: Wednesday, August 8, 2018 1:59 PM
To: 'Olson, Charlotte'
Cc: Ruffo, Gord; Caillin Katnich; Nutton, Byron
Subject: RE: DFO Content for Indigenous Engagement Package-VFPA Comments
Attachments: 2018-08-08_HabitatBanking_VFPA-DFO_Engagement_FINAL.ppt; 2018-08-08_VFPA-DFO_CoverLetter_HBA_engagementsessions.pdf

Hi Charlotte;

Please find attached DFO's Habitat Banking deck (FINAL) for the VFPA-DFO upcoming engagement sessions with Indigenous groups. Please let me know if you have any other change requests.

I have also attached a pdf of the proposed cover letter to Aboriginal groups with proposed minor edits for your review and incorporation (sorry I wasn't able to work with the document to copy/paste as formatting wouldn't follow and the only other option was comment bubbles so you're getting hand-notes instead).

See you August 21, 22.

Suzanne

S. Thorpe

Partnerships, Standards and Guidelines/ Partenariats, normes et lignes directrices
Fisheries Protection Program/ Programme de protection des pêches
Ecosystem Management Branch / Direction de la gestion des écosystèmes
Fisheries and Oceans Canada (DFO), Pacific Region/ Pêches et Océans Canada, Région du Pacifique
Government of Canada/ Gouvernement du Canada
200-401 Burrard Street, Vancouver BC V6C 3S4 (13th Floor)/ 401 Burrard Street, bureau 200, Vancouver (C.-B.) V6C 3S4
Telephone: (604) 666.3512

From: Olson, Charlotte [mailto:Charlotte.Olson@portvancouver.com]
Sent: 2018-August-08 1:04 PM
To: Nutton, Byron; Thorpe, Suzanne
Cc: Ruffo, Gord; Caillin Katnich
Subject: RE: DFO Content for Indigenous Engagement Package-VFPA Comments

OK, thanks Byron

Hi Suzanne - please send the content as soon as you can, as unfortunately we are already a week late from our original plan of sending a package out to groups (e.g. for their review in advance of our September 11 and October 11 proposed meeting dates). Gord will send meeting holds for those meeting dates too, so please accept those invites (per the cover letter we had sent you).

And Suzanne, please include my colleague Caillin (copied here) on your email with your DFO content – thanks again!

Charlotte Olson P.Geo., PMP
Manager, Infrastructure Habitat Development

CELL: 604.349.4111

From: Nutton, Byron [mailto:Byron.Nutton@dfo-mpo.gc.ca]
Sent: Tuesday, August 07, 2018 6:38 PM
To: Olson, Charlotte <Charlotte.Olson@portvancouver.com>
Cc: Ruffo, Gord <Gord.Ruffo@portvancouver.com>; Thorpe, Suzanne <Suzanne.Thorpe@dfo-mpo.gc.ca>
Subject: RE: DFO Content for Indigenous Engagement Package-VFPA Comments

Hi Charlotte,

I have made some changes and asked Suzanne to have one last review for editorial or formatting issues and then forward a final to you.

I am away the rest of the week, but Suzanne will be in if there is anything else required.

Regards,

Byron

From: Nutton, Byron
Sent: 2018–August-07 9:32 AM
To: 'Olson, Charlotte' <Charlotte.Olson@portvancouver.com>
Subject: RE: DFO Content for Indigenous Engagement Package-VFPA Comments

Hi Charlotte,

The last couple weeks have been busy. I will get you something today.

Cheers,

Byron

From: Olson, Charlotte [mailto:Charlotte.Olson@portvancouver.com]
Sent: 2018–July-30 10:43 AM
To: Nutton, Byron <Byron.Nutton@dfo-mpo.gc.ca>; Thorpe, Suzanne <Suzanne.Thorpe@dfo-mpo.gc.ca>
Cc: Caillin Katnich <Caillin.Katnich@portvancouver.com>; Ruffo, Gord <Gord.Ruffo@portvancouver.com>
Subject: FW: DFO Content for Indigenous Engagement Package-VFPA Comments
Importance: High

Hi Byron & Suzanne, just following up on this from last Monday, are you able to make these suggested edits to your draft deck and send back to VFPA so we can finalize our package?

Please let me know how we can assist, we can make the edits if that would be helpful – just let us know!

The rest of the package is ready to be sent out in early August per our plan.

Thx!

Charlotte Olson P.Geo., PMP
Manager, Infrastructure Habitat Development

CELL: 604.349.4111

From: Olson, Charlotte
Sent: Monday, July 23, 2018 3:32 PM
To: 'Nutton, Byron' <Byron.Nutton@dfo-mpo.gc.ca>

Cc: Caillin Katnich <Caillin.Katnich@portvancouver.com>; Ruffo, Gord <Gord.Ruffo@portvancouver.com>; Thorpe, Suzanne <Suzanne.Thorpe@dfo-mpo.gc.ca>

Subject: RE: DFO Content for Indigenous Engagement Package-VFPA Comments

Hi Byron, in follow up to my note below.

Thanks for providing your material for our upcoming consultation on our Arrangement for Habitat Banking. We have reviewed this document and have provided a marked-up version with our comments (attached). Most of the comments are self-explanatory but here is some added detail on our comments:

1. The Habitat Ledger should be presented as a "sample" and as such, references to VFPA (or PMV) should be removed so it is a generic ledger. It is important that it is clear that this is not VFPA's ledger. Also, the slide included references to MOU's which probably should be changed to "Arrangements". Also, the first two entries are not ledger items that we would use; is this intended to show how DFO tracks administrative items related to the bank?
2. We suggest deleting the "Next Steps" section as the covering letter provides the details on the process that is being used.
3. We suggest deleting "DFO Contact Information" at this time as we identified Jemma Scoble as the contact person for this engagement process we are embarking on. If we can keep all correspondence going to Jemma through this process, she can ensure that our consultation records are complete.

Caillin Katnich from our team will preparing a single PDF package shortly so you can see how the package will look. We are including your current draft document but recognize that edits will be made.

Can you please make these edits we suggest here, and send your content back to us asap?

We remain on track for completing this consultation package by the end of this week (Friday, July 27) if so.

Thanks for your efforts on this!

Charlotte

Charlotte Olson P.Geo., PMP
Manager, Infrastructure Habitat Development

CELL: 604.349.4111

From: Olson, Charlotte

Sent: Monday, July 23, 2018 10:35 AM

To: 'Nutton, Byron' <Byron.Nutton@dfo-mpo.gc.ca>

Cc: Caillin Katnich <Caillin.Katnich@portvancouver.com>; Ruffo, Gord <Gord.Ruffo@portvancouver.com>; Thorpe, Suzanne <Suzanne.Thorpe@dfo-mpo.gc.ca>

Subject: RE: DFO Content for Indigenous Engagement Package-update?

Thanks Byron for sending this DFO-prepared content. We will take a look.

Per our discussion, and in alignment with what we sent you on July 13th – for format, we are proposing a letter + Attachment package. We have prepared the letter and the first 3 Attachments, and you have just sent your content for Attachment 4. On our end, we will "lay-out" the content as a final draft PDF package (with cover sheets for the 4 Attachments) and send back to you for a look, I expect we can have this to you tomorrow.

Thanks,

Charlotte Olson P.Geo., PMP

Manager, Infrastructure Habitat Development

CELL: 604.349.4111

From: Nutton, Byron [<mailto:Byron.Nutton@dfo-mpo.gc.ca>]

Sent: Saturday, July 21, 2018 4:23 PM

To: Olson, Charlotte <Charlotte.Olson@portvancouver.com>

Cc: Caillin Katnich <Caillin.Katnich@portvancouver.com>; Ruffo, Gord <Gord.Ruffo@portvancouver.com>; Thorpe, Suzanne <Suzanne.Thorpe@dfo-mpo.gc.ca>

Subject: RE: DFO Content for Indigenous Engagement Package-update?

Hi Charlotte.

Our network was down yesterday so couldn't send – thanks for your on-going patience.

Please see attached draft DFO content – comments, suggestions, etc. welcomed.

We still need to figure out the best way to present (format) your and our information.

Cheers,

Byron

From: Olson, Charlotte [<mailto:Charlotte.Olson@portvancouver.com>]

Sent: 2018-July-19 12:20 PM

To: Nutton, Byron <Byron.Nutton@dfo-mpo.gc.ca>; Thorpe, Suzanne <Suzanne.Thorpe@dfo-mpo.gc.ca>

Cc: Caillin Katnich <Caillin.Katnich@portvancouver.com>; Ruffo, Gord <Gord.Ruffo@portvancouver.com>

Subject: RE: DFO Content for Indigenous Engagement Package-update?

Hi Byron & Suzanne, just checking in on this? I am away for the day on Vancouver Island tomorrow, do we expect to receive DFO's content today or?

If received tomorrow, we will aim to review and finalize the package next week – in order to stay on our proposed schedule of getting this package out in early August.

Please send any comments on what we already sent you July 13th.

Thanks!

Charlotte Olson P.Geo., PMP

Manager, Infrastructure Habitat Development

CELL: 604.349.4111

From: Nutton, Byron [<mailto:Byron.Nutton@dfo-mpo.gc.ca>]

Sent: Tuesday, July 17, 2018 8:42 AM

To: Olson, Charlotte <Charlotte.Olson@portvancouver.com>

Cc: Thorpe, Suzanne <Suzanne.Thorpe@dfo-mpo.gc.ca>; Caillin Katnich <Caillin.Katnich@portvancouver.com>

Subject: RE: June 26 DFO-VFPA Meeting RE Habitat Bank Arrangement and Indigenous Engagement - Follow Up Items

Hi again Charlotte,

Yesterday did not unfold as expected and I am in a meeting most of today, but will have it to you later this evening.

Regards,

Byron

From: Nutton, Byron

Sent: 2018-July-13 11:32 AM

To: 'Olson, Charlotte' <Charlotte.Olson@portvancouver.com>

Cc: Thorpe, Suzanne <Suzanne.Thorpe@dfo-mpo.gc.ca>; Caillin Katnich <Caillin.Katnich@portvancouver.com>

Subject: RE: June 26 DFO-VFPA Meeting RE Habitat Bank Arrangement and Indigenous Engagement - Follow Up Items

In the last couple days I haven't had a chance to dig into the stuff that Suzanne prepared while I was away, but based on a quick overview it is very close. I will get through it and send you a draft on Monday.

I am good for the 22nd and will come to Vancouver.

I'll leave it with Suzanne to confirm as well, but I know we had pencilled in the 21st-23rd so expect it will still work for her as well.

Cheers,

Byron

From: Olson, Charlotte [<mailto:Charlotte.Olson@portvancouver.com>]

Sent: 2018-July-12 11:29 AM

To: Nutton, Byron <Byron.Nutton@dfo-mpo.gc.ca>

Cc: Thorpe, Suzanne <Suzanne.Thorpe@dfo-mpo.gc.ca>; Caillin Katnich <Caillin.Katnich@portvancouver.com>

Subject: RE: June 26 DFO-VFPA Meeting RE Habitat Bank Arrangement and Indigenous Engagement - Follow Up Items

Hi Byron

Just a quick note – we are still on track to provide the VFPA drafted engagement content to DFO by EOD tomorrow, July 13th.

The content will be sent in draft for your review/comment next week (per our plan we discussed) – **and my colleague copied here, Caillin Katnich – will be emailing the draft content to you.**

At this time, we'd also like to confirm the prep. meeting Wed August 22nd (10am-12noon) – if that works for you Byron, can you come to Vancouver office or?

Cheers,

Charlotte Olson P.Geo., PMP

Manager, Infrastructure Habitat Development

CELL: 604.349.4111

From: Olson, Charlotte

Sent: Friday, July 06, 2018 2:06 PM

To: 'Nutton, Byron' <Byron.Nutton@dfo-mpo.gc.ca>; Thorpe, Suzanne <Suzanne.Thorpe@dfo-mpo.gc.ca>

Cc: Ruffo, Gord <Gord.Ruffo@portvancouver.com>; Scoble, Jemma <Jemma.Scoble@portvancouver.com>; Bryce, James <James.Bryce@portvancouver.com>

Subject: RE: June 26 DFO-VFPA Meeting RE Habitat Bank Arrangement and Indigenous Engagement - Follow Up Items

Importance: High

Hi Byron and Suzanne

To keep track of actions and what we discussed at our June 26 meeting (10-11am) at VFPA:

1. I've prepared a short summary of actions (first attachment). Please don't hesitate to respond if I've missed something, or captured something in error.
2. Also re-attached is the 1-page PDF of the materials we agreed to assemble (referred to in the actions list).
3. Lastly, also Byron – as requested, attached is a draft (dated July 6/18) of the proposed draft Annex's (Annex's F and G) that VFPA has prepared (to attach to draft Arrangement) – related to Indigenous engagement/consultation.
 - Annex F – pertains to DFO's consultation (using the text provided by you)
 - Annex G – pertains to VFPA's consultation (same content you have previously seen)
 - You will see in the next draft of the Arrangement (that VFPA is still working on) – the context provided for each of the proposed Annex's (per DFO's request to include)

Later next week, I will send out Calendar invites for our August meeting (Aug 21-23 TBC) – thanks for info below Byron.

Cheers

Charlotte Olson P.Geo., PMP
Manager, Infrastructure Habitat Development

CELL: 604.349.4111

From: Nutton, Byron [<mailto:Byron.Nutton@dfo-mpo.gc.ca>]
Sent: Wednesday, June 27, 2018 12:56 PM
To: Olson, Charlotte <Charlotte.Olson@portvancouver.com>
Cc: Thorpe, Suzanne <Suzanne.Thorpe@dfo-mpo.gc.ca>
Subject: RE: June 26 DFO-VFPA Meeting RE Habitat Bank Arrangement and Indigenous Engagement

Hi Charlotte,

In follow-up to our meeting, with respect to upcoming meeting dates...

1. Suzanne and I have pencilled-in Aug 21-23 for the pre-engagement prep meeting and are waiting for you to propose a specific date/time.
2. After checking my calendar, unfortunately I am not available the week of September 17-21, but Suzanne and I have confirmed our availability for Tues-Thurs the weeks of Sep 10th and 24th, and Tues-Thurs the weeks of Oct 1st, 9th and 16th
3. I have confirmed with Tola that at this time DFO does not have any scheduled sessions for the next phase of engagement on the Fisheries Act review, but she suspects that things will be starting to happen around end of September or early October – once we have proposed dates for engagement on banking I will let her know
4. Lorienta will not be available to assist/attend at that time, but I will work with Tola to identify Indigenous engagement support as needed

Regards,

Byron

s.19(1)

From: Olson, Charlotte [<mailto:Charlotte.Olson@portvancouver.com>]
Sent: 2018-June-26 4:20 PM

To: Nutton, Byron <Byron.Nutton@dfo-mpo.gc.ca>; Thorpe, Suzanne <Suzanne.Thorpe@dfo-mpo.gc.ca>

Cc: Scoble, Jemma <Jemma.Scoble@portvancouver.com>; Ruffo, Gord <Gord.Ruffo@portvancouver.com>

Subject: June 26 DFO-VFPA Meeting RE Habitat Bank Arrangement and Indigenous Engagement

Hi Byron and Suzanne, thanks again for meeting at VFPA today from 10-11am to discuss our next steps on Indigenous engagement and the status of the VFPA-DFO habitat bank arrangement.

- Attached is the document we handed out at the meeting – which summarizes our proposed info package content and approach to prepare for August 2018 distribution, so you have a digital copy.

As discussed, we will work toward our July 13 date for having our content ready, for review the following week.

Also – Byron, by early July, we will endeavor to provide you with a copy of the draft Indigenous consultation Annex (to our habitat banking arrangement), that we have been working on - as you requested.

Lastly – Suzanne, please see the below link and second PDF attachment to this email for an overview of our completed New Brighton Park Shoreline Habitat Restoration Project

<https://www.portvancouver.com/development-and-permits/development/new-brighton-park-shoreline-habitat-restoration-project/>

Cheers!

Charlotte Olson P.Geo., PMP
Manager, Infrastructure Habitat Development



Vancouver Fraser Port Authority
100 The Pointe, 999 Canada Place
Vancouver, B.C. Canada V6C 3T4

P: 604.665.9590 | CELL: 604.349.4111
portvancouver.com

**Pages 939 to / à 957
are duplicates of
sont des duplicatas des
pages 887 to / à 905**

**Pages 958 to / à 959
are duplicates of
sont des duplicatas des
pages 704 to / à 705**

From: Olson, Charlotte
To: Thorpe, Suzanne
Cc: Ruffo, Gord; Caillin Katnich; Nutton, Byron
Subject: RE: DFO Content for Indigenous Engagement Package-VFPA Comments
Date: 2018-August-09 9:39:55 AM
Attachments: image001.png

As discussed this morning, thank you Suzanne & Byron
We'll be finalizing the package shortly – will include you both as cc on the letter, and provide you a copy of the final package that goes out.

See you in later August!

Charlotte Olson P.Geo., PMP
Manager, Infrastructure Habitat Development

CELL: 604.349.4111

From: Thorpe, Suzanne [mailto:Suzanne.Thorpe@dfo-mpo.gc.ca]
Sent: Wednesday, August 08, 2018 1:59 PM
To: Olson, Charlotte <Charlotte.Olson@portvancouver.com>
Cc: Ruffo, Gord <Gord.Ruffo@portvancouver.com>; Caillin Katnich <Caillin.Katnich@portvancouver.com>; Nutton, Byron <Byron.Nutton@dfo-mpo.gc.ca>
Subject: RE: DFO Content for Indigenous Engagement Package-VFPA Comments

Hi Charlotte;

Please find attached DFO's Habitat Banking deck (FINAL) for the VFPA-DFO upcoming engagement sessions with Indigenous groups. Please let me know if you have any other change requests.

I have also attached a pdf of the proposed cover letter to Aboriginal groups with proposed minor edits for your review and incorporation (sorry I wasn't able to work with the document to copy/paste as formatting wouldn't follow and the only other option was comment bubbles so you're getting hand-notes instead).

See you August 21, 22.

Suzanne

S. Thorpe

Partnerships, Standards and Guidelines/ Partenariats, normes et lignes directrices
Fisheries Protection Program/ Programme de protection des pêches
Ecosystem Management Branch / Direction de la gestion des écosystèmes
Fisheries and Oceans Canada (DFO), Pacific Region/ Pêches et Océans Canada, Région du Pacifique
Government of Canada/ Gouvernement du Canada

200-401 Burrard Street, Vancouver BC V6C 3S4 (13th Floor)/ 401 Burrard Street, bureau 200, Vancouver (C.-B.) V6C 3S4
Telephone: (604) 666.3512

From: Olson, Charlotte [<mailto:Charlotte.Olson@portvancouver.com>]
Sent: 2018-August-08 1:04 PM
To: Nutton, Byron; Thorpe, Suzanne
Cc: Ruffo, Gord; Caillin Katnich
Subject: RE: DFO Content for Indigenous Engagement Package-VFPA Comments

OK, thanks Byron

Hi Suzanne - please send the content as soon as you can, as unfortunately we are already a week late from our original plan of sending a package out to groups (e.g. for their review in advance of our September 11 and October 11 proposed meeting dates). Gord will send meeting holds for those meeting dates too, so please accept those invites (per the cover letter we had sent you).

And Suzanne, please include my colleague Caillin (copied here) on your email with your DFO content – thanks again!

Charlotte Olson P.Geo., PMP
Manager, Infrastructure Habitat Development

CELL: 604.349.4111

From: Nutton, Byron [<mailto:Byron.Nutton@dfo-mpo.gc.ca>]
Sent: Tuesday, August 07, 2018 6:38 PM
To: Olson, Charlotte <Charlotte.Olson@portvancouver.com>
Cc: Ruffo, Gord <Gord.Ruffo@portvancouver.com>; Thorpe, Suzanne <Suzanne.Thorpe@dfo-mpo.gc.ca>
Subject: RE: DFO Content for Indigenous Engagement Package-VFPA Comments

Hi Charlotte,

I have made some changes and asked Suzanne to have one last review for editorial or formatting issues and then forward a final to you.

I am away the rest of the week, but Suzanne will be in if there is anything else required.

Regards,

Byron

From: Nutton, Byron
Sent: 2018-August-07 9:32 AM
To: 'Olson, Charlotte' <Charlotte.Olson@portvancouver.com>
Subject: RE: DFO Content for Indigenous Engagement Package-VFPA Comments

Hi Charlotte,

The last couple weeks have been busy. I will get you something today.

Cheers,

Byron

From: Olson, Charlotte [<mailto:Charlotte.Olson@portvancouver.com>]

Sent: 2018-July-30 10:43 AM

To: Nutton, Byron <Byron.Nutton@dfo-mpo.gc.ca>; Thorpe, Suzanne <Suzanne.Thorpe@dfo-mpo.gc.ca>

Cc: Caillin Katnich <Caillin.Katnich@portvancouver.com>; Ruffo, Gord <Gord.Ruffo@portvancouver.com>

Subject: FW: DFO Content for Indigenous Engagement Package-VFPA Comments

Importance: High

Hi Byron & Suzanne, just following up on this from last Monday, are you able to make these suggested edits to your draft deck and send back to VFPA so we can finalize our package? Please let me know how we can assist, we can make the edits if that would be helpful – just let us know!

The rest of the package is ready to be sent out in early August per our plan.

Thx!

Charlotte Olson P.Geo., PMP
Manager, Infrastructure Habitat Development

CELL: 604.349.4111

From: Olson, Charlotte

Sent: Monday, July 23, 2018 3:32 PM

To: 'Nutton, Byron' <Byron.Nutton@dfo-mpo.gc.ca>

Cc: Caillin Katnich <Caillin.Katnich@portvancouver.com>; Ruffo, Gord <Gord.Ruffo@portvancouver.com>; Thorpe, Suzanne <Suzanne.Thorpe@dfo-mpo.gc.ca>

Subject: RE: DFO Content for Indigenous Engagement Package-VFPA Comments

Hi Byron, in follow up to my note below.

Thanks for providing your material for our upcoming consultation on our Arrangement for Habitat Banking. We have reviewed this document and have provided a marked-up version with our comments (attached). Most of the comments are self-explanatory but here is some added detail on our comments:

1. The Habitat Ledger should be presented as a "sample" and as such, references to VFPA (or PMV) should be removed so it is a generic ledger. It is important that it is clear that this is not VFPA's ledger. Also, the slide included references to MOU's which probably should be changed to "Arrangements". Also, the first two entries are not ledger items that we would use; is this intended to show how DFO tracks administrative items related to the bank?
2. We suggest deleting the "Next Steps" section as the covering letter provides the details on

the process that is being used.

3. We suggest deleting "DFO Contact Information" at this time as we identified Jemma Scoble as the contact person for this engagement process we are embarking on. If we can keep all correspondence going to Jemma through this process, she can ensure that our consultation records are complete.

Caillin Katnich from our team will be preparing a single PDF package shortly so you can see how the package will look. We are including your current draft document but recognize that edits will be made.

Can you please make these edits we suggest here, and send your content back to us asap?

We remain on track for completing this consultation package by the end of this week (Friday, July 27) if so.

Thanks for your efforts on this!

Charlotte

Charlotte Olson P.Geo., PMP
Manager, Infrastructure Habitat Development

CELL: 604.349.4111

From: Olson, Charlotte

Sent: Monday, July 23, 2018 10:35 AM

To: 'Nutton, Byron' <Byron.Nutton@dfo-mpo.gc.ca>

Cc: Caillin Katnich <Caillin.Katnich@portvancouver.com>; Ruffo, Gord <Gord.Ruffo@portvancouver.com>; Thorpe, Suzanne <Suzanne.Thorpe@dfo-mpo.gc.ca>

Subject: RE: DFO Content for Indigenous Engagement Package-update?

Thanks Byron for sending this DFO-prepared content. We will take a look.

Per our discussion, and in alignment with what we sent you on July 13th – for format, we are proposing a letter + Attachment package. We have prepared the letter and the first 3 Attachments, and you have just sent your content for Attachment 4. On our end, we will "lay-out" the content as a final draft PDF package (with cover sheets for the 4 Attachments) and send back to you for a look, I expect we can have this to you tomorrow.

Thanks,

Charlotte Olson P.Geo., PMP
Manager, Infrastructure Habitat Development

CELL: 604.349.4111

From: Nutton, Byron [<mailto:Byron.Nutton@dfo-mpo.gc.ca>]

Sent: Saturday, July 21, 2018 4:23 PM

To: Olson, Charlotte <Charlotte.Olson@portvancouver.com>

Cc: Caillin Katnich <Caillin.Katnich@portvancouver.com>; Ruffo, Gord <Gord.Ruffo@portvancouver.com>; Thorpe, Suzanne <Suzanne.Thorpe@dfo-mpo.gc.ca>

Subject: RE: DFO Content for Indigenous Engagement Package-update?

Hi Charlotte.

Our network was down yesterday so couldn't send – thanks for your on-going patience.

Please see attached draft DFO content – comments, suggestions, etc. welcomed.

We still need to figure out the best way to present (format) your and our information.

Cheers,

Byron

From: Olson, Charlotte [<mailto:Charlotte.Olson@portvancouver.com>]

Sent: 2018-July-19 12:20 PM

To: Nutton, Byron <Byron.Nutton@dfo-mpo.gc.ca>; Thorpe, Suzanne <Suzanne.Thorpe@dfo-mpo.gc.ca>

Cc: Caillin Katnich <Caillin.Katnich@portvancouver.com>; Ruffo, Gord <Gord.Ruffo@portvancouver.com>

Subject: RE: DFO Content for Indigenous Engagement Package-update?

Hi Byron & Suzanne, just checking in on this? I am away for the day on Vancouver Island tomorrow, do we expect to receive DFO's content today or?

If received tomorrow, we will aim to review and finalize the package next week – in order to stay on our proposed schedule of getting this package out in early August.

Please send any comments on what we already sent you July 13th.

Thanks!

Charlotte Olson P.Geo., PMP
Manager, Infrastructure Habitat Development

CELL: 604.349.4111

From: Nutton, Byron [<mailto:Byron.Nutton@dfo-mpo.gc.ca>]

Sent: Tuesday, July 17, 2018 8:42 AM

To: Olson, Charlotte <Charlotte.Olson@portvancouver.com>

Cc: Thorpe, Suzanne <Suzanne.Thorpe@dfo-mpo.gc.ca>; Caillin Katnich <Caillin.Katnich@portvancouver.com>

Subject: RE: June 26 DFO-VFPA Meeting RE Habitat Bank Arrangement and Indigenous Engagement -

Follow Up Items

Hi again Charlotte,

Yesterday did not unfold as expected and I am in a meeting most of today, but will have it to you later this evening.

Regards,

Byron

From: Nutton, Byron

Sent: 2018-July-13 11:32 AM

To: 'Olson, Charlotte' <Charlotte.Olson@portvancouver.com>

Cc: Thorpe, Suzanne <Suzanne.Thorpe@dfo-mpo.gc.ca>; Caillin Katnich <Caillin.Katnich@portvancouver.com>

Subject: RE: June 26 DFO-VFPA Meeting RE Habitat Bank Arrangement and Indigenous Engagement - Follow Up Items

In the last couple days I haven't had a chance to dig into the stuff that Suzanne prepared while I was away, but based on a quick overview it is very close. I will get through it and send you a draft on Monday.

I am good for the 22nd and will come to Vancouver.

I'll leave it with Suzanne to confirm as well, but I know we had pencilled in the 21st-23rd so expect it will still work for her as well.

Cheers,

Byron

From: Olson, Charlotte [<mailto:Charlotte.Olson@portvancouver.com>]

Sent: 2018-July-12 11:29 AM

To: Nutton, Byron <Byron.Nutton@dfo-mpo.gc.ca>

Cc: Thorpe, Suzanne <Suzanne.Thorpe@dfo-mpo.gc.ca>; Caillin Katnich <Caillin.Katnich@portvancouver.com>

Subject: RE: June 26 DFO-VFPA Meeting RE Habitat Bank Arrangement and Indigenous Engagement - Follow Up Items

Hi Byron

Just a quick note – we are still on track to provide the VFPA drafted engagement content to DFO by EOD tomorrow, July 13th.

The content will be sent in draft for your review/comment next week (per our plan we discussed) –

and my colleague copied here, Caillin Katnich – will be emailing the draft content to you.

At this time, we'd also like to confirm the prep. meeting Wed August 22nd (10am-12noon) – if that works for you Byron, can you come to Vancouver office or?

Cheers,

Charlotte Olson P.Geo., PMP
Manager, Infrastructure Habitat Development

CELL: 604.349.4111

From: Olson, Charlotte

Sent: Friday, July 06, 2018 2:06 PM

To: 'Nutton, Byron' <Byron.Nutton@dfo-mpo.gc.ca>; Thorpe, Suzanne <Suzanne.Thorpe@dfo-mpo.gc.ca>

Cc: Ruffo, Gord <Gord.Ruffo@portvancouver.com>; Scoble, Jemma <Jemma.Scoble@portvancouver.com>; Bryce, James <James.Bryce@portvancouver.com>

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3. Lastly, also Byron – as requested, attached is a draft (dated July 6/18) of the proposed draft Annex's (Annex's F and G) that VFPA has prepared (to attach to draft Arrangement) – related to Indigenous engagement/consultation.
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Regards,

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Sent: 2018-June-26 4:20 PM

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Cc: Scoble, Jemma <Jemma.Scoble@portvancouver.com>; Ruffo, Gord <Gord.Ruffo@portvancouver.com>

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Cheers!

Charlotte Olson P.Geo., PMP
Manager, Infrastructure Habitat Development



Vancouver Fraser Port Authority
100 The Pointe, 999 Canada Place
Vancouver, B.C. Canada V6C 3T4

P: 604.665.9590 | CELL: 604.349.4111
portvancouver.com

No information has been removed or severed from this page

VFPA proposed changes dated August 14, 2018

Habitat Bank Arrangement:

PORT OF VANCOUVER HABITAT BANK

Between

VANCOUVER FRASER PORT AUTHORITY

AND

HER MAJESTY THE QUEEN IN RIGHT OF CANADA, as represented by the Minister of
Fisheries and Oceans on behalf of Fisheries and Oceans Canada (“DFO”)

●XXXXXX, 2018

PATH Number: [INSERT PATH NUMBER]

1. INTRODUCTION

This document sets out the principles of the mutual understanding between **Vancouver Fraser Port Authority (“VFPA”)** and Fisheries and Oceans Canada (“DFO”) (hereafter referred to as “the Participants”) for the **Port of Vancouver Habitat Bank (“Habitat Bank”)**.

WHEREAS:

- a. Fisheries and Oceans Canada (DFO) is responsible for the administration of the *Fisheries Act*, more specifically the fisheries protection provisions including sections 6, 20, 21, 35, 37, and 38 related to the conservation and protection of Canada's marine and freshwater fisheries resources and their habitats from the impact of human activities. The purpose of the fisheries protection provisions, as set out in Section 6.1 of the *Fisheries Act*, is to provide for the sustainability and ongoing productivity of commercial, recreational and Aboriginal fisheries;
- b. DFO is responsible for the administration of the *Species at Risk Act* ("SARA") with respect to aquatic species other than those individuals in or on federal lands administered by the Parks Canada Agency and, in that capacity, the Minister of Fisheries and Oceans has powers and duties with respect to protecting aquatic species listed under that Act and providing for their recovery;
- c. The Fisheries Protection Policy Statement's goal is to promote compliance with the *Fisheries Act* in order to contribute to the purpose set out in section 6.1 of the *Fisheries Act*;
- d. This Arrangement does not commit DFO to the authorization of any future work, undertaking or activity requiring an authorization under paragraph 35(2)(b) of the *Fisheries Act*, or permit any future project requiring a permit under sections 73 and 74 of the *Species at Risk Act*. All future projects will be reviewed on their own merit and a decision on whether to authorize or permit will be made independent of the existence of a habitat bank arrangement. This Arrangement, and any related communications between DFO and VFPA do not constitute a representation or commitment of any kind regarding authorization of any future projects by DFO. This Arrangement, and any related communications, moreover does not constitute a commitment that any habitat credits that may be issued will be acceptable in the context of future applications for *Fisheries Act* authorizations or SARA permits.
- e. VFPA is a port authority established by the Government of Canada pursuant to the *Canada Marine Act* and is accountable to the federal Minister of Transport. VFPA has a mandate to facilitate Canada's trade objectives, ensuring goods are moved safely, while protecting the environment and considering local communities. In fulfilling the mandate, VFPA carries out a variety of duties, including infrastructure development to support growth and efficient operations. The Habitat Bank can support such infrastructure development when habitat credits are acceptable in the context of future *Fisheries Act* authorizations or SARA permits.

- f. The Participants entered into a Working Agreement dated July 31, 2012 (“Working Agreement”) relating to the procedures for development and operation of a VFPA-led habitat bank for a five (5) year trial period which was extended by the Participants to March 31, 2019;
- g. VFPA has undertaken several habitat creation and enhancement projects in consultation with DFO pursuant to the Working Agreement, which are included in Annex E (“Existing Projects”); and
- h. This Arrangement will replace the Working Agreement and the Existing Projects will be managed pursuant to this Arrangement.

THEREFORE, the Participants agree to the following arrangement (“Arrangement”).

2. PURPOSE

To support VFPA in fulfilling its mandate (referred to in paragraph e above) by facilitating infrastructure development when habitat credits from the Habitat Bank can be applied to meet future offsetting requirements for such development.

To replace the Working Agreement with this Arrangement and to establish revised principles for the continuation and management of the Habitat Bank by:

- establishing a working relationship between the Participants based on trust, accountability and information sharing;
- establishing a clear understandable Arrangement for managing the Habitat Bank; and
- increasing certainty in the administration of the Habitat Bank.

3. OTHER GENERAL INFORMATION

The activities carried out under this Arrangement will be consistent with:

- *Fisheries Protection Policy Statement* (2013);
- *Fisheries Productivity Investment Policy: A Proponent’s Guide to Offsetting* (2013);
- *Interim Fisheries Protection Program’s Guide to Proponent-led Habitat Banking* (October, 2016) (“Guide”);
- any relevant Species at Risk Recovery Strategies and management considerations; and
- any relevant Fisheries Management Objectives.

4. SCOPE

The scope of this Arrangement is limited to the continuation and administration of the Habitat Bank described in Annex A, and including conservation projects proposed in accordance with Annex B and the Existing Projects (described in Annex E).

5. ROLES AND RESPONSIBILITIES

The roles and responsibilities of the VFPA are:

- Jointly managing the performance of the Arrangement with DFO;
- Identifying, designing, constructing, monitoring, maintaining, and protecting conservation project sites;
- Meeting all other applicable federal, territorial, provincial and municipal requirements that apply to conservation projects;
- Reporting on performance of conservation projects;
- Accurately maintaining a copy of the habitat credit ledger; and
- Preparing and submitting Progress Reports for the Arrangement.

The roles and responsibilities of DFO are:

- Jointly managing the performance of the Arrangement with VFPA;
- Reviewing, providing advice and confirming conservation project proposals;
- Reviewing Progress Reports, validating habitat credit balances in the habitat credit ledger, and processing habitat credit ledger transactions;
- Verifying the reported results of conservation project performance in the Progress Reports;
- When appropriate, carrying out direct monitoring (i.e., a site visit to gather and analyse samples or information in order to directly verify compliance and effectiveness) and/or carrying out indirect monitoring (i.e., an assessment of information provided in Progress Reports to verify compliance and effectiveness) of conservation project sites; and
- Reviewing and processing Progress Reports of the Arrangement.

The Participants shall fulfill their responsibilities under this Arrangement in accordance with the provisions of federal, provincial and territorial laws and regulations that govern their activities. Should a Participant not be able to perform a function under this Arrangement, the affected Participant will immediately contact the other signatories of this Arrangement so that early resolution can be reached.

6. MANAGEMENT PROVISIONS

This Arrangement establishes the following management provisions for the administration of the Habitat Bank:

- The accountability lies with the office of signatories of the Arrangement: Director, Infrastructure Sustainability, Vancouver Fraser Port Authority and Regional Director, Ecosystems Management, DFO Pacific Region.
- The day to day administration of the Arrangement will be carried out by: Program Manager, Habitat Enhancement Program, Vancouver Fraser Port Authority and Manager, Integrated Planning, Fish and Fish Habitat Protection Program, DFO Pacific Region.

7. ADMINISTRATION OF THE HABITAT BANK ARRANGEMENT

- Specific details related to the principles of the administration and operation of the Habitat Bank are included in Annex A;
- Conservation projects that are proposed for development are to be submitted for review and confirmation by DFO using the “Project Confirmation” template set out in Annex B;
- Habitat credits held within the Habitat Bank shall be tracked using the “Habitat Credit Ledger” template and frequency set out in and described in Annex C;
- Progress Reports shall be prepared and submitted annually in accordance with the requirements of Annex D;
- Existing Projects that were either constructed or proposed for construction under the terms of the Working Agreement are identified in Annex E; and
- Indigenous consultation and engagement related to the use of habitat credits is described in Annex F.

8. SHARING OF INFORMATION

While this Arrangement is in effect and at all times thereafter, each of DFO and VFPA and any officers, employees or agents of each of them shall treat all information, data, documents, reports and materials acquired or to which access have been given in the course of, or incidental to, the performance of this Arrangement as confidential, subject to the federal *Access to Information Act* and the *Privacy Act*. With the exception of the Arrangement, the annexes to the Arrangement and annual Progress Reports, which VFPA may disclose from time to time, the Participants shall not disclose or permit to be disclosed such information, data, documents, reports and materials, unless:

- the Participants agree to the disclosure;
- the disclosure is part of the application and review process of VFPA’s Project and Environmental Review for a proposed conservation project, which would include disclosure of project-specific information, engagement information for public/stakeholder and Indigenous groups and technical content, and the posting of on-line information;
- the disclosure is part of the application and review process by DFO for a proposed development project that would utilize habitat banking credits as offsetting, which would include disclosure of project-specific information, engagement information for public/stakeholder and Indigenous groups and technical content, and the posting of on-line information;

- the disclosure is part of an application and review process of other regulatory agencies (such as Environment Canada for Disposal at Sea permit) for a proposed conservation project, which would include disclosure only as required by the such agencies;
- the disclosure relates to consultation and engagement with Indigenous groups as part of the Indigenous Consultation and Engagement Process set out in Annex G;
- the disclosure is to a third party as part of the Habitat Bank Administration as described in Annex A;
- the disclosure is required by law;
- the information was obtained from the public; or
- the information is available to the public.

9. CONSULTATION AND ENGAGEMENT

The Participants will collaborate on an approach to meaningfully engage and consult with Indigenous groups having regard to the process being undertaken by VFPA's Habitat Enhancement Program for the development of conservation projects and the involvement of Indigenous groups that is described in Annex G.

10. DIFFERENCES IN INTERPRETATION AND APPLICATION

The Participants will endeavor to resolve issues regarding the implementation of this Arrangement in a timely manner using mechanisms available to the Participants. Where an issue remains unresolved, the pre-eminent jurisdiction responsible for the matter under consideration will make the final determination and seek concurrence from Director, Infrastructure Sustainability, Vancouver Fraser Port Authority and Regional Director, Ecosystems Management, DFO Pacific Region.

11. PROGRESS REPORTS

The VFPA will prepare progress reports using the form described in Annex D ("Progress Report") on the achievements and challenges encountered during the reporting period of this Arrangement as it relates to the purposes identified in section 2 of this Arrangement.

The Progress Report should be submitted within ninety (90) calendar days from the conclusion of each year. A year will be considered to run from January 1 to December 31.

The Progress Report will be submitted to the Office of signatories of the Arrangement, Director, Infrastructure Sustainability, Vancouver Fraser Port Authority and Regional Director, Ecosystems Management, DFO Pacific Region, for their concurrence.

All Progress Reports will conform to the requirements set out in ANNEX D.

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12. REVIEW

At the end of each five (5) year period during which this Arrangement is in effect, the Regional Director, Ecosystems Management, DFO Pacific Region, will establish a review team consisting of Program Manager, Habitat Enhancement Program, Vancouver Fraser Port Authority and Manager, Integrated Planning, Fish and Fish Habitat Protection Program, DFO Pacific Region, or an appropriately qualified and mutually agreed to third party to review the effectiveness of activities under this Arrangement. This review team will report to the Regional Director, Ecosystems Management, DFO Pacific Region, within six (6) months of being established.

13. AMENDMENT

The Arrangement may be amended at any time in writing and by mutual consent of the Participants. An amendment will be confirmed by an exchange of letters, signed by the Participants, setting out the amendment and its effective date.

14. FINANCIAL ARRANGEMENT

This Arrangement will not impose any additional financial responsibilities on the Participants, except that each Participant will be responsible for the staff and funding costs it incurs in its own interests, related to the support of the Arrangement.

15. DURATION, WITHDRAWAL AND TERMINATION

This Arrangement is in effect for a period of fifteen (15) years **[NTD: Final term of the arrangement to be agreed upon.]** VFPA can request renewal of the Arrangement for an additional defined term (of no less than five (5) years) by providing one year's written notice to the other Participant. If this Arrangement is not renewed at the expiration of the term or a renewal, and provided that VFPA is not in breach of this Arrangement, the Participants will continue to apply the terms of this Arrangement to all conservation projects that are either deposited in the Habitat Bank or have been confirmed by DFO in accordance with Annex B.

16. LEGAL DISCLAIMER

This Arrangement is an expression of the mutual intentions of the Participants and is not legally binding or enforceable against them.

17. NOTICE

All notices to be given under this Arrangement shall be in writing and shall be sent by prepaid registered mail or electronic transmission addressed to the Party entitled to receive the same, or delivered to such party as follows:

- if to VFPA:

Vancouver Fraser Port Authority (VFPA)
100 The Pointe
999 Canada Place
Vancouver, British Columbia
V6C 3T4

Attention: Director, Infrastructure Sustainability
E-mail:

with a copy to:

Attention: Director, Legal Services
E-mail:

- if to DFO:

Fisheries and Oceans Canada (DFO)
Pacific Region, Ecosystems Management Branch
Suite 200 – 401 Burrard Street
Vancouver, BC
V6C 3S4

Attention: Regional Director
E-mail:

18. GENERAL

VFPA is entering into this Arrangement on its own behalf and not as agent of Her Majesty in Right of Canada.

EFFECTIVE DATE AND SIGNATURE

This Arrangement has been signed by the Regional Director of DFO Pacific Region of Fisheries and Oceans on behalf of Her Majesty the Queen in Right of Canada and by the VFPA on the dates noted below.

SIGNED IN THE PRESENCE OF:

FOR HER MAJESTY THE QUEEN IN RIGHT OF CANADA

Cheryl Webb
Regional Director
Ecosystems Management
DFO Pacific Region

Witness

Date

FOR VANCOUVER FRASER PORT AUTHORITY

Robin Silvester
President and CEO

Witness (as to both)

Mark Gustafson
Corporate Secretary

Date

This Arrangement comes into effect on the date that both Participants have signed above.

ANNEX A

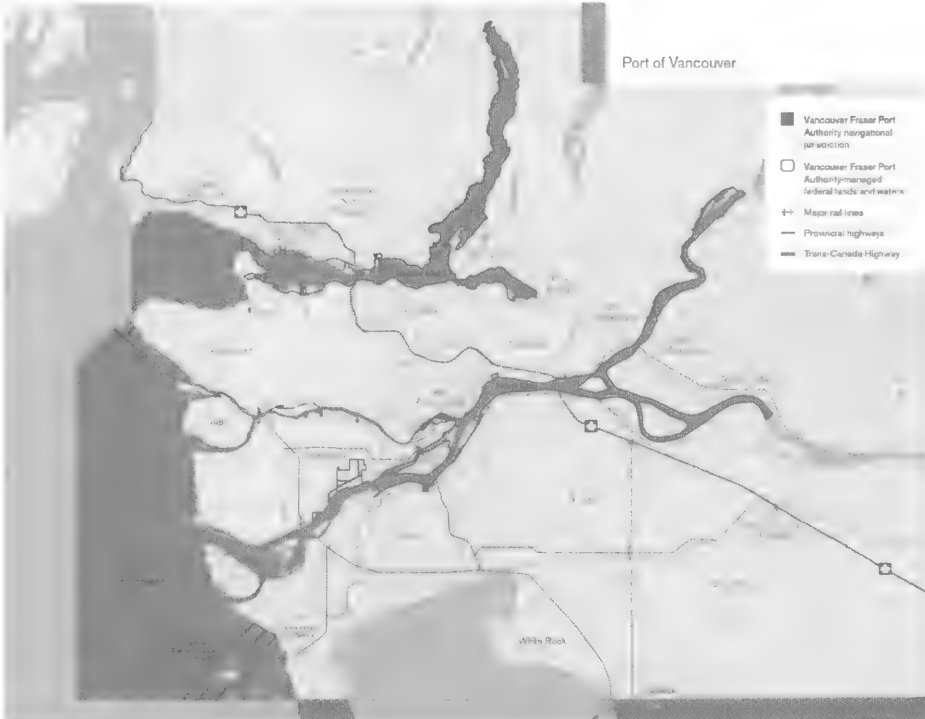
HABITAT BANK DESCRIPTION AND THE PRINCIPLES FOR THE MANAGEMENT OF THE PORT OF VANCOUVER HABITAT BANK

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VFPA proposed changes dated August 14, 2018

ANNEX A:

HABITAT BANK DESCRIPTION AND THE PRINCIPLES FOR THE MANAGEMENT OF THE PORT OF VANCOUVER HABITAT BANK

Information Required	Description
Habitat Bank Location ("Service Area")	<p>The Service Area of the Habitat Bank will include conservation projects situated geographically within the lands and waters managed by VFPA and within the navigational jurisdiction of VFPA pursuant to its Letters Patent, as amended from time to time. The Service Area includes the Fraser River Estuary and its tributaries, Burrard Inlet, the Strait of Georgia and its associated inlets (See Figure 1.0 below) and will include other areas as established from time to time as mutually agreed to by the Participants.</p> <p>Figure 1.0 Service Area of the Habitat Bank</p>  <p>[NTD: The Service Area proposed has been refined by VFPA following a March 7/18 meeting with DFO. The same rationale for the above Service Area stands, and considers Indigenous engagement aspects discussed March 7/18. The rationale for the proposed Service Area is as follows: VFPA manages over 16,000 hectares of waterway, more than 1,000 hectares of land and approximately 350 kilometers of shoreline. Such areas includes estuarine and marine shoreline that supports a myriad of</p>

	<p>commercial, recreational and Aboriginal fisheries and fish that support these fisheries. Some of these fisheries species exhibit anadromous or migratory life histories. For example, Pacific salmon spend the adult portions of their lives feeding in the Pacific Ocean, including the Strait of Georgia, spawn in freshwater rivers and tributaries of the Fraser River and Burrard Inlet, and rear in the Fraser River estuary and along shallow marine shorelines. Habitat creation and enhancement targeted at migratory species can be planned throughout the proposed geographic service area and to the benefit of CRA species that occupy and transit the areas VFPA manages.]</p>
Habitat Bank Administration	<p>The Habitat Bank is a long-term initiative, comprised of conservation projects, that is used to proactively create, restore or enhance fish habitat to benefit fish and wildlife species. Consistent with VFPA's mandate, this enables VFPA to balance future infrastructure development opportunities with a healthy environment.</p> <p><u>Site Selection:</u></p> <p>Conservation projects for the Habitat Bank will generally be selected based on the following considerations and criteria:</p> <ul style="list-style-type: none"> (a) <u>Need:</u> Locations characterized by low productive capacity for species and stocks of interest or species at risk will be considered as a priority for the Habitat Bank. The intent is to develop or improve habitat capacity in the Service Area where habitat is needed and in support of applicable DFO policies. (b) <u>Habitat Productivity:</u> Emphasis will be placed on creation of high value habitat types that support a large number of ecological services and species functions (e.g. eelgrass beds and low marshes). The value of productivity will be assessed in the context of "need" (see (a) above). (c) <u>Site location:</u> Sites for the Habitat Bank will be selected based on their proximity to potential development areas with significant or rare ecological habitats or where onsite habitat compensation opportunities may be limited. (d) <u>Feasibility and cost:</u> Coastal zone processes, river hydraulics biological productivity and ecological functioning are amongst the factors that will be used to determine the feasibility of habitat creation. In some areas it may not be possible to achieve stable self-functioning habitat due to ongoing influences of physical processes. Further, some habitat creation options may be possible but only at extreme high cost. Consideration may be given if these habitat types are critical for endangered or threatened species and the habitat credit

	<p>applied to the Habitat Bank recognizes the increased cost of development.</p> <p>Through regular liaison meetings between DFO and VFPA representatives, potential conservation projects are identified and discussed.</p> <p>DFO's confirmation of the appropriateness of a proposed conservation project for inclusion in the Habitat Bank is achieved through submitting the project for review and confirmation by DFO using the "Project Confirmation" template set out in Annex B.</p> <p><u>Habitat Credits:</u></p> <p>Habitat credit valuation will be established specifically for each conservation project. This valuation will include the unit of measure and the value of the credits to be deposited in the Habitat Bank. A description of the approach and the analysis performed will be included in the preparation of the "Project Confirmation" using the template set out in Annex B.</p> <p>Conservation projects will be recorded as a deposit into the Habitat Bank on the Habitat Credit Ledger upon completion of construction of the conservation project using the template set out in Annex C.</p> <p>The actual productive value of a particular conservation project will be determined immediately prior to its proposed use as credit to offset a development project.</p> <p>VFPA shall, either through ownership, lease, licence or other agreement, ensure that a conservation project site is protected at least until the withdrawal of the habitat credits from the Bank that are associated with the conservation project site.</p> <p><u>Third Parties:</u></p> <p>VFPA may develop conservation projects for inclusion in the Habitat Bank in collaboration with third parties. Once included in the Habitat Bank, such conservation projects will be treated in the same manner as other conservation projects that have been placed into the Habitat Bank.</p> <p>VFPA may enter into agreements with third parties to allow withdrawal of habitat credits, as defined by this Arrangement, when such an agreement facilitates development activities that support VFPA in fulfilling its mandate.</p>
Bank Establishment Date	<p>July 31, 2012 for a five (5) year trial period under the terms of the Working Agreement, which was executed on September 10, 2012, and which was extended by the Participants to March 31, 2019, and which was replaced by this Arrangement on [insert date] for a term of fifteen (15) years.</p>

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ANNEX B

FORM OF PROJECT CONFIRMATION

The following document template (titled Project Confirmation) will be used to identify and confirm that a proposed conservation project is appropriate and confirmed for development and deposit in the Habitat Bank.

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 PORT of vancouver Habitat Enhancement Program	 Fisheries and Oceans Canada / Pêches et Océans Canada <u>Project Confirmation</u>
PROJECT NAME:	

Terminology used:

- “**Arrangement**” refers to the arrangement between Fisheries and Oceans Canada and Vancouver Fraser Port Authority for the management and administration of the Vancouver Fraser Port Authority Habitat Bank
- “**DFO**” refers to Fisheries and Oceans Canada
- “**FPIP**” refers to *Fisheries Productivity Investment Policy: A Proponent's Guide to Offsetting (2013)*
- “**VFPA**” refers to Vancouver Fraser Port Authority
- “**Project**” refers to the proposed _____
- “**QEP**” refers to a Qualified Environmental Professional

Preamble:

In accordance with the Arrangement, this Project Confirmation will be used to confirm that:

- VFPA consulted and negotiated with DFO on the suitability of the above-referenced Project for habitat banking purposes.
- DFO agrees, in principle, that the above-referenced Project would be acceptable as fish habitat as identified herein.
- DFO agrees that the identified type of fish habitat and the approximate quantity of fish habitat would be suitable for habitat banking.
- The Project meets the terms of the Arrangement with regard to need, fish habitat, productivity, site location, feasibility/cost, and ownership/tenure.
- DFO acknowledges that VFPA has developed the project concept and will move to final design as identified in the attached drawings.

This Project Confirmation is used to support the conditions and requirements of the Arrangement and does not alter or modify the Arrangement in any manner. This Project Confirmation will also be used to confirm that the Project, if constructed as proposed, meets the objectives of the FPIP. An assisted assessment has determined that a DFO regulatory review pursuant to the Fisheries Act is not required for the Project. This assessment was conducted by a QEP in accordance with guidance from DFO's Projects Near Water web site and DFO's "Science Advice for Managing Risk and Uncertainty in Operational Decisions of the Fisheries Protection Program" (2014). As would be expected for a viable habitat enhancement opportunity, this assessment concluded that the Project will not result in Serious Harm to fish that contribute to commercial, recreational or Aboriginal (CRA) fisheries.

As the Project proceeds, VFPA will maintain responsibility to ensure that the Project has undergone appropriate reviews and assessments, including those mandated by applicable environmental assessment legislation (e.g., Species at Risk Act, if applicable) and any other VFPA-mandated reviews and assessments.

Project Overview:	
<ul style="list-style-type: none"> <i>Description of the proposed project and how the proposed project will result in the creation of fish habitat that will provide long-term benefits for targeted species of fish such as salmon, aquatic species at risk or other species that may utilize the project area.</i> <i>Description and valuation of the ecological functions that the proposed project will include.</i> <i>Brief description of the proposed construction activities, including how they will be undertaken to avoid and mitigate any impacts to fish and fish habitat.</i> <i>Brief description of the proposed timing for project completion, including post-construction monitoring.</i> 	
Water feature name:	
Location of Works	
Regional district/ land use authority:	
City/municipality:	
Lat./Long.	
Property ownership:	
Description of Pre-Construction Values	
<ul style="list-style-type: none"> <i>Description of pre-construction habitat values and conditions, including biophysical attributes</i> <i>Description of pre-construction use of the area, including site history as appropriate</i> 	
Description of Proposed Activities	
<ul style="list-style-type: none"> <i>Detailed description of construction activities and design approach</i> <i>Includes attachment of design drawings, and proposed habitat area for construction</i> <i>Description of construction methodology and detailed mitigation measures</i> 	
Overall work schedule:	
Least risk work window:	
Potential Habitat Gains and Anticipated Affected Areas	

- *Description of habitat gains, and anticipated affected habitat, table format*

Habitat Type	Potential Habitat Gain (m ²)	Anticipated Affected Habitat (m ²)	Comments
X Habitat Type			
Habitat Gains and Affected Habitat			

Fish Productivity Investment Policy Considerations

- *Description and high-level summary of how the proposed project is expected to comply with FPIP objectives, based on project characteristics, ecology of relevant fisheries species, fisheries management objectives, and any local restoration priorities.*
- *This includes a review of readily available online information including DFO fisheries management plans and other documents as required*
- *Description and rationale for how the proposed project meets the following 4 Principles of the FPIP:*
 - **Principle 1:** *Offsetting measures must support fisheries management objectives or local restoration priorities.*
 - *Rationale:*
 - **Principle 2:** *Benefits from offsetting measures must balance Project impacts.*
 - *Rationale:*
 - **Principle 3:** *Offsetting measures must provide additional benefits to the fishery.*
 - *Rationale:*
 - **Principle 4:** *Offsetting measures must generate self-sustaining benefits over the long-term.*
 - *Rationale:*

Post Construction Monitoring Plan

- *An as-built survey will be provided to document and confirm the size of the created habitat, following construction.*
- *VFPA will ensure that post-construction monitoring is undertaken in accordance with standard DFO requirements to confirm that created fish habitats are functioning as intended.*
- *A Post-Construction Monitoring Plan for the Habitat Enhancement Program has been created to outline monitoring requirements for habitat enhancement sites.*
- *Monitoring will include assessments of site stability, proper physical function, planting success, and achievement of the desired biological objectives.*
- *VFPA to provide an estimate of predicted time for the vegetation at the site to become well established*

Attachments

- *Design Drawings (attachment)*

Signed on behalf of Vancouver Fraser Port Authority:

Habitat Enhancement Program
Vancouver Fraser Port Authority

Date: _____

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ANNEX C

HABITAT CREDIT LEDGER

The following template shall be used to record and track the credits associated with each conservation project that has been deposited in the Habitat Bank. The completed Habitat Credit Ledger will be submitted to DFO at the following frequency:

- with each Annual Report; and
- following a transaction in the Habitat Bank (withdrawal or deposit of credits).

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ANNEX D

FORM OF PROGRESS REPORTS

The following reports will be used to document and communicate the status of the Habitat Bank on an annual basis:

- Annual Report for VFPA's Habitat Bank; and
- Annual Habitat Monitoring Report for VFPA's Habitat Bank.

Each report will be submitted to DFO on annual basis and shall include the detail as provided in the following Outline of Content.

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<u>ANNUAL REPORT FOR VFPA'S HABITAT BANK</u>	
– Outline of Content	
<u>SECTION</u>	<u>CONTENT</u>
1. Table of Contents	
2. Terminology Used	<ul style="list-style-type: none"> • Descriptions of terminology used in the report
3. Executive Summary	<ul style="list-style-type: none"> • Identification of purpose of Annual Report • Statement of commitment between Participants for a working relationship built on trust, accountability and information sharing • Overview of annual transactions and current credits
4. Introduction	<ul style="list-style-type: none"> • Background on the Habitat Bank • Acknowledgement of reporting requirements under the terms of the Arrangement
5. Administration of the Habitat Bank	<ul style="list-style-type: none"> • Tracking processes and responsibilities • Activities started/completed in Reporting Period • Annual Review • VFPA and DFO Liaison Activities • Achievements in Reporting Period
6. Credits in the Habitat Bank	<ul style="list-style-type: none"> • Summary of the credits in the Habitat Bank and the transaction that were performed in the reporting year
7. General Ledger	<ul style="list-style-type: none"> • Overview of the General Ledger
8. Habitat Balance Sheet	<ul style="list-style-type: none"> • Overview of the Habitat Balance Sheet
9. Anticipated Program for 20XX [Next Year]	<ul style="list-style-type: none"> • Projects Currently under Construction • Priority Projects for 20XX
10. Management Issues and Opportunities	<ul style="list-style-type: none"> • Challenges and issues encountered • Obstacles • Potential remedial measures for implementation next year
11. Indigenous Engagement Activities	<ul style="list-style-type: none"> • Summary of Indigenous engagement activities performed within the reporting year on conservation projects
12. Public and Key Stakeholder Engagement Activities	<ul style="list-style-type: none"> • Summary of public and key stakeholder engagement activities performed within the reporting year on conservation projects <p>Summary of public and key stakeholder engagement activities</p>

<u>ANNUAL REPORT FOR VFPA'S HABITAT BANK</u>	
– Outline of Content	
<u>SECTION</u>	<u>CONTENT</u>
	performed within the reporting year on conservation projects
<u>Appendices</u>	
Appendix A	Summary of VFPA and DFO Meetings in the Reporting Year
Appendix B	As-Built Reports
Appendix C	Credit Transaction Reports
Appendix D	Map of Sites in the Habitat Bank
Appendix E	General Ledger
Appendix F	Habitat Balance Sheet
Appendix G	Map of Sites Proposed for Next Year

ANNUAL HABITAT MONITORING REPORT FOR VFPA'S HABITAT BANK

– Outline of Content

<u>SECTION</u>	<u>CONTENT</u>
1. Terminology Used	<ul style="list-style-type: none"> • Descriptions of terminology used in the report
2. Introduction	<ul style="list-style-type: none"> • Background of the Habitat Bank • Acknowledgement of reporting requirements under the terms of the Arrangement
3. Types of Monitoring	<ul style="list-style-type: none"> • Description of the various types of monitoring that is used for the administration of the Habitat Bank
4. 20XX Monitoring Results	<ul style="list-style-type: none"> • Overview of monitoring results for each conservation project (Detailed reports are included in Appendix A)
5. Next Year's Habitat Monitoring Report	<ul style="list-style-type: none"> • Overview of next year's anticipated habitat monitoring
<u>Appendices</u>	
Appendix A	Conservation Project Monitoring Reports
Appendix B	Monitoring Status and Proposed Monitoring Schedule

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ANNEX E

EXISTING PROJECTS

The conservation projects that are identified herein represent the status of the Habitat Bank and projects planned for the Habitat Bank as of the Effective Date of this Arrangement.

Table 1 – Conservation projects currently deposited in the Habitat Bank

Table 2 – Conservation projects that have been proposed by VFPA and accepted by DFO as appropriate for development and deposit into the Habitat Bank

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VFPA proposed changes dated August 14, 2018

Table 1.0 – Conservation Projects Deposited to VFPA Habitat Bank

No.	SITE	LOCATION	BANKED AREA (m ²)	STATUS
1.	Salt Marsh Restoration – TFN (3.1 & 3.2)	Delta (Tsawwassen)	6,635 m ² (salt marsh)	<ul style="list-style-type: none"> • Work is complete • Monitoring is in progress
2.	Salt Marsh Restoration - Boundary Bay (3.3, 3.4 & 3.5)	Delta (Boundary Bay)	56,357 m ² (salt marsh)	<ul style="list-style-type: none"> • Work is complete • Monitoring is in progress
3.	Glenrose Tidal Marsh	Delta	10,778 m ² (tidal freshwater marsh)	<ul style="list-style-type: none"> • Work is complete • Monitoring is in progress
4.	Riverfront Park Tidal Marsh	Vancouver	1,481 m ² (brackish marsh)	<ul style="list-style-type: none"> • Work is complete • Monitoring is in progress
5.	Gladstone Park Tidal Marsh	Vancouver	3,181 m ² (brackish marsh)	<ul style="list-style-type: none"> • Work is complete • Monitoring is in progress
6.	Timberland Basin Habitat	Surrey	1,146 m ² / 2,777 m ² (tidal freshwater marsh / tidal freshwater mudflat)	<ul style="list-style-type: none"> • Work is complete • Monitoring is in progress
7.	New Brighton Park Shoreline Habitat Restoration Project	Vancouver	9,872 m ² (salt marsh, marine tidal channel & mudflat, cobble/boulder beach, and marine riparian)	<ul style="list-style-type: none"> • Work is complete • Monitoring is in progress

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Table 2.0 – Conservation Projects Proposed by VFPA and accepted by DFO as appropriate for the Habitat Bank

No.	SITE	LOCATION	APPROX. GROSS AREA (ha.)	STATUS
1.	Cates Landing Habitat Restoration	North Vancouver	~1.0 ha	• Complete
2.	Maplewood Marine Restoration Project	North Vancouver	~7.0 ha	• Permitting and approvals in progress
3.	Tsawwassen Eelgrass Project	Delta	~4.3 ha	• Permitting and approvals in progress
4.	South Arm Jetty Tidal Marsh Project	Richmond	~44.0 ha	• Permitting and approvals in progress
5.	Westham Island / Canoe Pass Tidal Marsh Project	Ladner	~4.0 ha	• Permitting and approvals in progress
6.	McDonald Tidal Marsh Project	Richmond	~2.8 ha	• Permitting and approvals in progress
7.	Point Grey Tidal Marsh Project	Vancouver	~41.0 ha	• To be advanced in future years
8.	Steveston Island Tidal Marsh Project	Richmond (Steveston)	~6.5 ha	• To be advanced in future years

ANNEX F

INDIGENOUS CONSULTATION AND ENGAGEMENT: USE OF HABITAT CREDITS TO MEET OFFSETTING REQUIREMENTS OF A *FISHERIES ACT* AUTHORIZATION

Consultation with Indigenous peoples is required when Fisheries and Oceans Canada (DFO) makes a regulatory decision that may adversely impact potential or established Aboriginal or treaty rights, Indigenous groups and their related interests. Under the fisheries protection provisions of the *Fisheries Act*, a regulatory decision occurs when DFO contemplates the decision to authorize a work, undertaking or activity under section 35(2)(b) of the *Fisheries Act*. Indigenous consultation will normally take place after DFO has received an Application for Authorization and determined that the information requirements set out in the *Applications for Authorization under Paragraph 35(2)(b) of the Fisheries Act Regulations* have been met.

DFO will consult on the work, undertaking or activity being authorized under section 35(2)(b) of the *Fisheries Act* and any other aspects of the Authorization that have the potential to adversely impact potential or established Aboriginal or treaty rights, and related interests. The goal of these consultations will be to identify measures to avoid, minimise, or if required accommodate for, potential impacts of the work, undertaking or activity on the rights or interests of Indigenous peoples through mitigation and offsetting to be incorporated into the Authorization.

As the purpose of utilizing habitat banking credits is to meet offsetting requirements of an Authorization issued under section 35(2)(b) of the *Fisheries Act*, the proposed use of habitat banking credits is subject to Indigenous consultation.

ANNEX G

INDIGENOUS CONSULTATION AND ENGAGEMENT: CONSERVATION PROJECT DEVELOPMENT BY HEP

Overview and Purpose

Indigenous consultation and engagement is a key element for the successful delivery of habitat creation and enhancement (conservation) projects undertaken by VFPA's Habitat Enhancement Program (HEP). This Annex describes the process implemented by HEP for developing conservation projects and identifies key points during the process for input and involvement by Indigenous groups. HEP's consultation and engagement with Indigenous groups aims to identify and address project-related impacts, to design and implement appropriate mitigation measures, and to explore opportunities for Indigenous involvement such as participation in field studies and/or employment, training and contracting. Subject to the discretion and direction of applicable regulatory agencies, including VFPA, HEP also aims to undertake consultation with Indigenous groups in accordance with the requirements of regulatory processes that are applicable to the conservation project (such as VFPA's Project and Environmental Review Process).

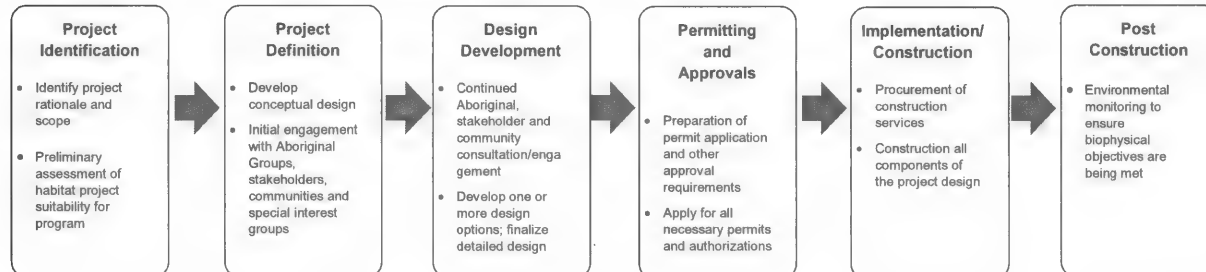
Conservation Project Development Process

The development of conservation projects is achieved through six basic project management phases that are used to guide and control the project from start to finish.

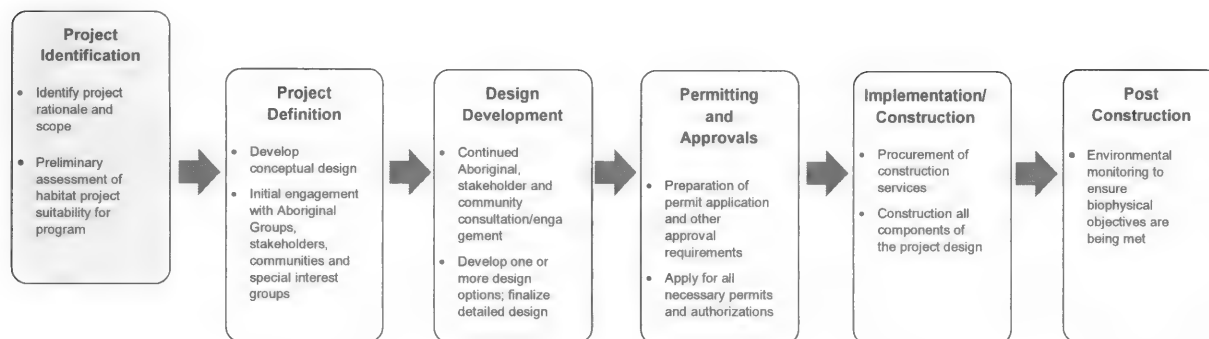
Commencing with the identification of a potential project, the process provides for the structured development and advancement of all required components required for project delivery.

- Phase 1 (**Project Identification**) – The “idea” or the vision of what could be achieved.
- Phase 2 (**Project Definition**) – What are the project objectives? Constraints?
- Phase 3 (**Design Development**) – How will the project objectives be achieved?
- Phase 4 (**Permitting and Approvals**) – Obtaining formal permission to perform the work.
- Phase 5 (**Implementation/Construction**) – Construction of the habitat project.
- Phase 6 (**Post Construction**) – Ensuring long-term success of the habitat project.

The illustration below depicts these six key project management phases and provides the key tasks associated with each.



Phase 1 - Conservation Project Identification

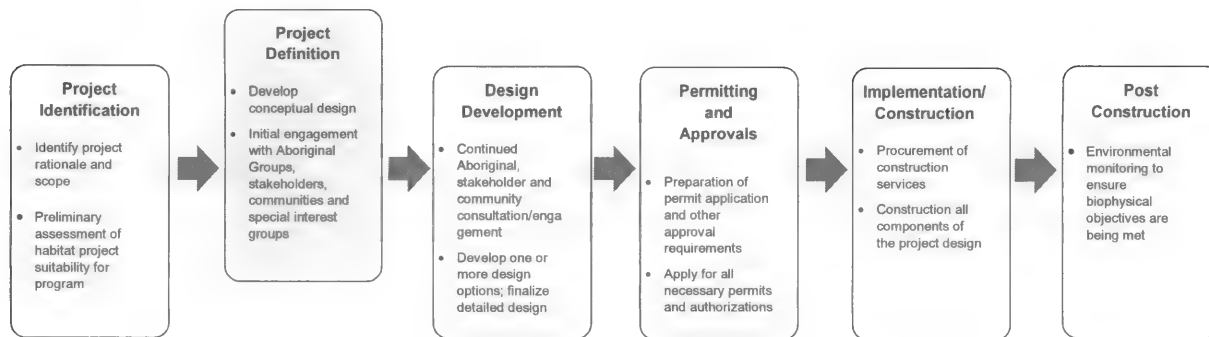


The identification of potential conservation projects is a critical component of the project delivery process. Considerations include habitat need, habitat productivity, feasibility, cost, land tenure, DFO confirmation and Indigenous matters.

Indigenous Consultation and Engagement

- HEP seeks input from Indigenous groups on identification of potential habitat enhancement sites*
- HEP seeks input from Indigenous groups on conservation projects identified by others*
- Indigenous groups share available traditional knowledge, information and studies*

Phase 2 - Conservation Project Definition



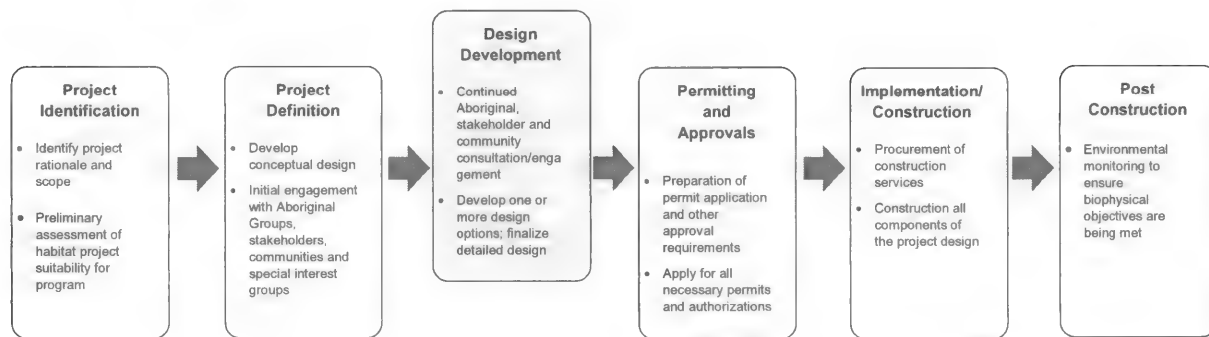
The development of conceptual designs is key in defining what a conservation project could include. Using these concept designs, initial engagement and consultation on specific project features can commence.

Indigenous Consultation and Engagement

- *HEP consults Indigenous groups on preferred engagement activities for project (e.g. Aboriginal Technical Design Committee)*
- *HEP consults Indigenous groups on project concept*
- *HEP identifies potential habitat values (i.e. credit estimates) that could be created and engages with interested Indigenous Groups*
- *Indigenous groups share Traditional Knowledge with HEP*
- *HEP identifies opportunity for involving Indigenous groups in field studies and assessments*
- *HEP commences planning for Indigenous involvement throughout project (e.g. contracting, employment and training opportunities)*

VFPA proposed changes dated August 14, 2018

Phase 3 - Design Development



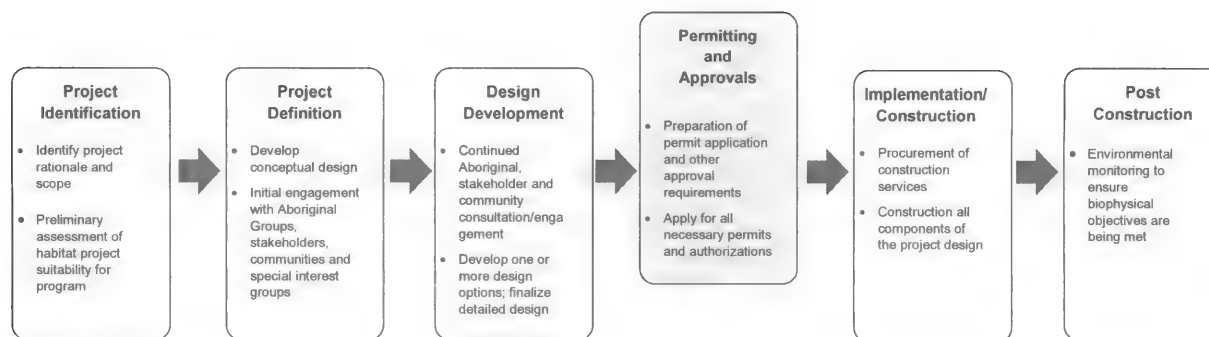
In the design phase, one or more designs are developed and evaluated. Through an iterative design process, a final design is selected and is refined to include all details necessary for construction.

Indigenous Consultation and Engagement

- *HEP consults Indigenous groups on the design options*
- *HEP considers Indigenous feedback and refines design of project where appropriate (including selection of plant species)*
- *Where required, HEP undertakes further consultation with Indigenous groups on the design*
- *HEP finalizes the design*
- *HEP shares final design with Indigenous groups*
- *HEP confirms habitat values (i.e. credits) and consults with Indigenous groups*
- *HEP obtains DFO confirmation of appropriateness of habitat project for the Habitat Enhancement Program*
- *HEP plans for continued Indigenous involvement in subsequent phases*

VFPA proposed changes dated August 14, 2018

Phase 4 - Permitting and Approvals



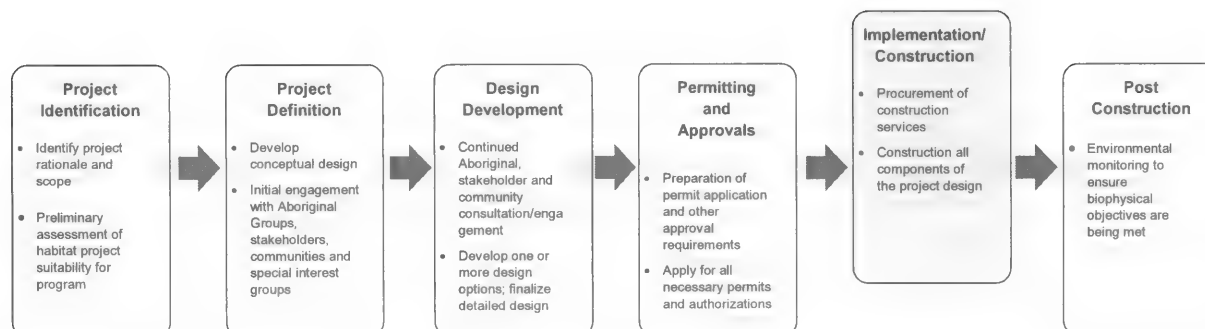
Permits and approvals that are required must be addressed on a project-by-project basis as regulatory requirements and land ownership can vary significantly.

Indigenous Consultation and Engagement

- *HEP engages with Indigenous groups in relation to permits and approvals*
- *HEP develops a summary of permits and approvals required and shares with Indigenous groups*
- *HEP seeks Indigenous input and support on permit applications*
- *HEP notifies Indigenous groups on submission of permit applications*
- *Regulators and permitting authorities may undertake Indigenous consultation*
- *HEP plans for continued Indigenous involvement in subsequent phases*

VFPA proposed changes dated August 14, 2018

Phase 5 - Implementation/Construction



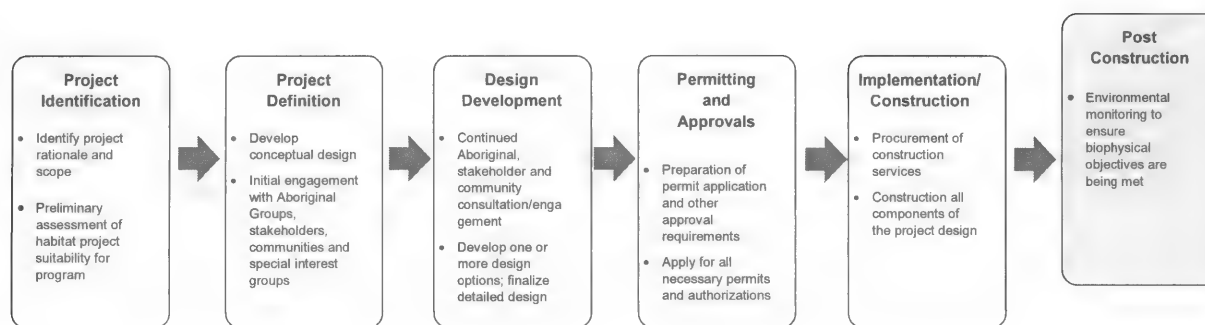
The conservation project takes shape during the Implementation/Construction Phase.

Indigenous Consultation and Engagement

- *HEP identifies approach to procurement and determines opportunities for Indigenous involvement/benefits*
- *HEP monitors conditions of approval/permits and any commitments to Indigenous groups*
- *HEP continues to keep Indigenous groups updated on progress of construction*
- *HEP plans for continued Indigenous involvement in Post Construction Phase*

VFPA proposed changes dated August 14, 2018

Phase 6 - Post Construction



Indigenous Consultation and Engagement

- *HEP shares Post Construction Monitoring Plan with Indigenous groups*
- *Potential contracting opportunities for Indigenous groups (e.g. maintenance, monitoring)*

From: Lien, Meaghan <Meaghan.Lien@portvancouver.com> on behalf of Scoble, Jemma <Jemma.Scoble@portvancouver.com>
Sent: Tuesday, August 14, 2018 2:55 PM
To: chief@halalt.org
Cc: Nutton, Byron; Thorpe, Suzanne; Caitlin Kenny; [REDACTED]
Subject: Habitat Enhancement Program Information Package
Attachments: 2018-08-14-HEP-AG-VFPA-Halalt-Habitat Enhancement Program Information Package.pdf

Good afternoon Chief Thomas,

Please see the attached information package regarding the Habitat Enhancement Program. The package provides information on the following:

- Overview of VFPA's Habitat Enhancement Program
- Overview of Aboriginal Consultation and Engagement on Habitat Projects Delivered for Inclusion in VFPA's Habitat Bank
- Project Example: New Brighton Park Shoreline Habitat Restoration Project
- DFO's Overview of Proponent-led Habitat Banking

Please do not hesitate to contact me if there are any questions or concerns.

Regards,

Jemma Scoble
Aboriginal Consultation Support



s.19(1)

Vancouver Fraser Port Authority
100 The Pointe, 999 Canada Place
Vancouver, B.C. Canada V6C 3T4

P: 604.665.9000 | C: 778.822.7240
portvancouver.com

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From: Lien, Meaghan <Meaghan.Lien@portvancouver.com> on behalf of Scoble, Jemma <Jemma.Scoble@portvancouver.com>
Sent: Tuesday, August 14, 2018 3:53 PM
To: [REDACTED]
Cc: Nutton, Byron; Thorpe, [REDACTED]
Subject: Habitat Enhancement Program Information Package
Attachments: 2018-08-14-HEP-AG-VFPA-TWN-Habitat Enhancement Program Information Package.pdf

Good afternoon [REDACTED]

Please see the attached information package regarding the Habitat Enhancement Program. The package provides information on the following:

- Overview of VFPA's Habitat Enhancement Program
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- Project Example: New Brighton Park Shoreline Habitat Restoration Project
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Please do not hesitate to contact me if there are any questions or concerns.

Regards,

Jemma Scoble
Aboriginal Consultation Support



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From: Lien, Meaghan <Meaghan.Lien@portvancouver.com> on behalf of Scoble, Jemma <Jemma.Scoble@portvancouver.com>
Sent: Tuesday, August 14, 2018 3:48 PM
To: chief@stzuminus.com
Cc: Nutton, Byron; Thorpe, Suzanne; [REDACTED]
Subject: Habitat Enhancement Program Information Package
Attachments: 2018-08-14-HEP-AG-VFPA-STZ-Habitat Enhancement Program Information Package.pdf

Good afternoon Chief Elliott,

Please see the attached information package regarding the Habitat Enhancement Program. The package provides information on the following:

- Overview of VFPA's Habitat Enhancement Program
- Overview of Aboriginal Consultation and Engagement on Habitat Projects Delivered for Inclusion in VFPA's Habitat Bank
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Please do not hesitate to contact me if there are any questions or concerns.

Regards,

Jemma Scoble
Aboriginal Consultation Support



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From: Lien, Meaghan <Meaghan.Lien@portvancouver.com> on behalf of Scoble, Jemma <Jemma.Scoble@portvancouver.com>
Sent: Tuesday, August 14, 2018 3:47 PM
To: bill_williams@squamish.net
Cc: Nutton, Byron; Thorpe, Suzanne
Subject: Habitat Enhancement Program Information Package
Attachments: 2018-08-14-HEP-AG-VFPA-SQN-Habitat Enhancement Program Information Package.pdf

Good afternoon Chief Williams,

Please see the attached information package regarding the Habitat Enhancement Program. The package provides information on the following:

- Overview of VFPA's Habitat Enhancement Program
- Overview of Aboriginal Consultation and Engagement on Habitat Projects Delivered for Inclusion in VFPA's Habitat Bank
- Project Example: New Brighton Park Shoreline Habitat Restoration Project
- DFO's Overview of Proponent-led Habitat Banking

Please do not hesitate to contact me if there are any questions or concerns.

Regards,

Jemma Scoble
Aboriginal Consultation Support



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From: Lien, Meaghan <Meaghan.Lien@portvancouver.com> on behalf of Scoble, Jemma <Jemma.Scoble@portvancouver.com>
Sent: Tuesday, August 14, 2018 3:44 PM
To: hchappell@semiahmoofirstnation.org
Cc: Nutton, Byron; Thorpe, Suzanne; [REDACTED]
Subject: Habitat Enhancement Program Information Package
Attachments: 2018-08-14-HEP-AG-VFPA-SFN-Habitat Enhancement Program Information Package.pdf

Good afternoon Chief Harley,

Please see the attached information package regarding the Habitat Enhancement Program. The package provides information on the following:

- Overview of VFPA's Habitat Enhancement Program
- Overview of Aboriginal Consultation and Engagement on Habitat Projects Delivered for Inclusion in VFPA's Habitat Bank
- Project Example: New Brighton Park Shoreline Habitat Restoration Project
- DFO's Overview of Proponent-led Habitat Banking

Please do not hesitate to contact me if there are any questions or concerns.

Regards,

Jemma Scoble
Aboriginal Consultation Support



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From: Lien, Meaghan <Meaghan.Lien@portvancouver.com> on behalf of Scoble, Jemma <Jemma.Scoble@portvancouver.com>
Sent: Tuesday, August 14, 2018 3:30 PM
To: chiefbrown@penelakut.ca
Cc: Nutton, Byron; Thorpe, Suzanne; [REDACTED]
Subject: Habitat Enhancement Program Information Package
Attachments: 2018-08-14-HEP-AG-VFPA-PT-Habitat Enhancement Program Information Package.pdf

Good afternoon Chief Brown,

Please see the attached information package regarding the Habitat Enhancement Program. The package provides information on the following:

- Overview of VFPA's Habitat Enhancement Program
- Overview of Aboriginal Consultation and Engagement on Habitat Projects Delivered for Inclusion in VFPA's Habitat Bank
- Project Example: New Brighton Park Shoreline Habitat Restoration Project
- DFO's Overview of Proponent-led Habitat Banking

Please do not hesitate to contact me if there are any questions or concerns.

Regards,

Jemma Scoble
Aboriginal Consultation Support



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From: Lien, Meaghan <Meaghan.Lien@portvancouver.com> on behalf of Scoble, Jemma <Jemma.Scoble@portvancouver.com>
Sent: Tuesday, August 14, 2018 3:28 PM
To: 'chief@musqueam.bc.ca'; 'chief.wsparrow@musqueam.bc.ca'
Cc: Nutton, Byron; Thorpe, Suzanne; [REDACTED]
Subject: Habitat Enhancement Program Information Package
Attachments: 2018-08-14-HEP-AG-VFPA-MIB-Habitat Enhancement Program Information Package.pdf

Good afternoon Chief Sparrow,

Please see the attached information package regarding the Habitat Enhancement Program. The package provides information on the following:

- Overview of VFPA's Habitat Enhancement Program
- Overview of Aboriginal Consultation and Engagement on Habitat Projects Delivered for Inclusion in VFPA's Habitat Bank
- Project Example: New Brighton Park Shoreline Habitat Restoration Project
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Please do not hesitate to contact me if there are any questions or concerns.

Regards,

Jemma Scoble
Aboriginal Consultation Support

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From: Lien, Meaghan <Meaghan.Lien@portvancouver.com> on behalf of Scoble, Jemma <Jemma.Scoble@portvancouver.com>
Sent: Tuesday, August 14, 2018 3:05 PM
To: chiefthomas@lyackson.bc.ca
Cc: Nutton, Byron; Thorpe, Suzanne; [REDACTED]
Subject: Habitat Enhancement Program Information Package
Attachments: 2018-08-14-HEP-AG-VFPA-LFN-Habitat Enhancement Program Information Package.pdf

Good afternoon Chief Pahalicktun,

Please see the attached information package regarding the Habitat Enhancement Program. The package provides information on the following:

- Overview of VFPA's Habitat Enhancement Program
- Overview of Aboriginal Consultation and Engagement on Habitat Projects Delivered for Inclusion in VFPA's Habitat Bank
- Project Example: New Brighton Park Shoreline Habitat Restoration Project
- DFO's Overview of Proponent-led Habitat Banking

Please do not hesitate to contact me if there are any questions or concerns.

Regards,

Jemma Scoble
Aboriginal Consultation Support



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From: Lien, Meaghan <Meaghan.Lien@portvancouver.com> on behalf of Scoble, Jemma <Jemma.Scoble@portvancouver.com>
Sent: Tuesday, August 14, 2018 3:02 PM
To: georgina@lcf.ca
Cc: Nutton, Byron; Thorpe, Suzanne; [REDACTED]
Subject: Habitat Enhancement Program Information Package
Attachments: 2018-08-14-HEP-AG-VFPA-LCFN-Habitat Enhancement Program Information Package.pdf

Good afternoon Chief Livingstone,

Please see the attached information package regarding the Habitat Enhancement Program. The package provides information on the following:

- Overview of VFPA's Habitat Enhancement Program
- Overview of Aboriginal Consultation and Engagement on Habitat Projects Delivered for Inclusion in VFPA's Habitat Bank
- Project Example: New Brighton Park Shoreline Habitat Restoration Project
- DFO's Overview of Proponent-led Habitat Banking

Please do not hesitate to contact me if there are any questions or concerns.

Regards,

Jemma Scoble
Aboriginal Consultation Support



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Meaghan Lien
Aboriginal Consultation Clerk



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portvancouver.com

No information has been removed or severed from this page

From: Lien, Meaghan <Meaghan.Lien@portvancouver.com> on behalf of Scoble, Jemma <Jemma.Scoble@portvancouver.com>
Sent: Tuesday, August 14, 2018 2:56 PM
To: jhornbrook@shaw.ca
Cc: Nutton, Byron; Thorpe, Suzanne
Subject: Habitat Enhancement Program Information Package
Attachments: 2018-08-14-HEP-AG-VFPA-Hwlitsum-Habitat Enhancement Program Information Package.pdf

Good afternoon Chief Hornbrook,

Please see the attached information package regarding the Habitat Enhancement Program. The package provides information on the following:

- Overview of VFPA's Habitat Enhancement Program
- Overview of Aboriginal Consultation and Engagement on Habitat Projects Delivered for Inclusion in VFPA's Habitat Bank
- Project Example: New Brighton Park Shoreline Habitat Restoration Project
- DFO's Overview of Proponent-led Habitat Banking

Please do not hesitate to contact me if there are any questions or concerns.

Regards,

Jemma Scoble
Aboriginal Consultation Support



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Thorpe, Suzanne

From: Lien, Meaghan <Meaghan.Lien@portvancouver.com> on behalf of Scoble, Jemma <Jemma.Scoble@portvancouver.com>
Sent: Tuesday, August 14, 2018 2:54 PM
To: executive@cowichantribes.com
Cc: Nutton, Byron; Thorpe, Suzanne; [REDACTED]
[REDACTED] referral.coordinator@cowichantribes.com
Subject: Habitat Enhancement Program Information Package
Attachments: 2018-08-14-HEP-AG-VFPA-CT-Habitat Enhancement Program Information Package.pdf

Good afternoon Chief Seymour,

Please see the attached information package regarding the Habitat Enhancement Program. The package provides information on the following:

- Overview of VFPA's Habitat Enhancement Program
- Overview of Aboriginal Consultation and Engagement on Habitat Projects Delivered for Inclusion in VFPA's Habitat Bank
- Project Example: New Brighton Park Shoreline Habitat Restoration Project
- DFO's Overview of Proponent-led Habitat Banking

Please do not hesitate to contact me if there are any questions or concerns.

Regards,

Jemma Scoble
Aboriginal Consultation Support

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Vancouver Fraser Port Authority
100 The Pointe, 999 Canada Place
Vancouver, B.C. Canada V6C 3T4
portvancouver.com

Via e-mail

August 14, 2018

Chief William "Chip" Seymour and Councillors
Cowichan Tribes
5760 Allenby Rd
Duncan, BC V9L 5J1

Dear Chief Seymour and Councillors:

Re: Habitat Enhancement Program Information Package

The Vancouver Fraser Port Authority (VFPA) currently has a formal agreement with Fisheries and Oceans Canada (DFO) for habitat banking that enables VFPA to create fish habitat ahead of infrastructure development. This agreement was established in 2012 and will expire in early 2019. It is the intent of VFPA and DFO to enter into a new agreement for habitat banking.

Prior to entering into this new agreement, VFPA and DFO would like to share information with Aboriginal groups on the consultation process used for the delivery of future habitat projects that are proposed for VFPA's habitat bank. This is also an opportunity for VFPA to obtain Cowichan Tribes's input on this process and to address any questions related to the habitat bank. To facilitate this engagement, VFPA is providing the attached information that describes the following:

- VFPA's Habitat Enhancement Program, which manages the habitat bank
- VFPA's Aboriginal consultation and engagement process used for the delivery of proposed habitat projects that would be included in the habitat bank
- A recent habitat project example (New Brighton Park Shoreline Habitat Restoration Project) that was constructed for inclusion in VFPA's habitat bank
- DFO's overview of proponent-led habitat banking

To further support the sharing of information and feedback, we are proposing to hold scheduled information sessions where the material provided in these information packages would be presented and representatives from VFPA and DFO would be available to answer specific questions.

These information sessions are tentatively scheduled for:

- September 11th (Lower Mainland)
- October 11th (Vancouver Island)

Invitations to these information sessions will be forwarded in the near future and will provide venue locations and time of sessions.

Cowichan Tribes
August 14, 2018
Page 2 of 2

Input from Aboriginal groups into the consultation process used for the delivery of proposed habitat projects for VFPA's habitat bank is important to VFPA and, as such, VFPA will be seeking feedback up to November 2, 2018.

All comments and information received through the information sessions or through other correspondence will be considered, documented and responded to as part of this process. A summary report of this input will also be prepared by VFPA and submitted to DFO. This report will also be shared with Aboriginal groups.

If you have any questions, comments or concerns regarding the information package provided herein, please contact Jemma Scoble at (778) 822-7240 or jemma.scoble@portvancouver.com.

Yours truly,

VANCOUVER FRASER PORT AUTHORITY



Charlotte Olson, P.Geo., PMP
Manager, Infrastructure Habitat Development
Vancouver Fraser Port Authority's Habitat Enhancement Program

Attached (4): Attachment 1: Overview of VFPA's Habitat Enhancement Program
Attachment 2: Overview of Aboriginal Consultation and Engagement
on Habitat Projects Delivered for Inclusion in VFPA's
Habitat Bank
Attachment 3: Project Example: New Brighton Park Shoreline
Habitat Restoration Project
Attachment 4: DFO's Overview of Proponent-led Habitat Banking

Electronic cc:

Byron Nutton, Team Lead, Standards and Guidelines, Fisheries Protection Program, DFO
Suzanne Thorpe, Senior Fisheries Protection Biologist, Fisheries Protection Program, DFO
[Redacted] Negotiator
[Redacted] Referral Assistant
referral.coordinator@cowichantribes.com

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Pages 1020 to / à 1035
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sont des duplicatas



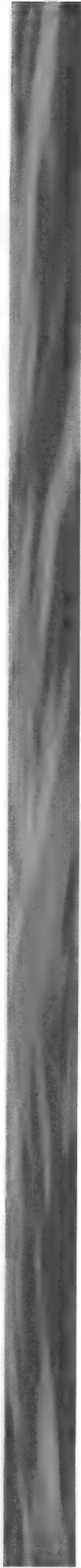
ATTACHMENT 4

**Fisheries and Oceans Canada
Overview of Proponent-led Habitat Banking**



Fisheries and Oceans
Canada

Pêches et Océans
Canada



Overview of Proponent-led Habitat Banking

Fisheries Protection Program
Pacific Region

Canada



Presentation Outline

1. Requirements for *Fisheries Act* Authorizations
 - *Fisheries Act* Authorizations
 - Regulatory Review Process
 - Offsetting Measures
2. Proponent-Led Habitat Banking
 - Defining a Proponent-led Habitat Bank
 - Benefits of Habitat Banking
 - Indigenous Consultation
3. Habitat Banking Arrangements
 - Process to Develop an Arrangement
 - Indigenous Engagement



Fisheries and Oceans
Canada

Pêches et Océans
Canada

Requirements for *Fisheries Act* Authorizations (Section 35(2)(b))

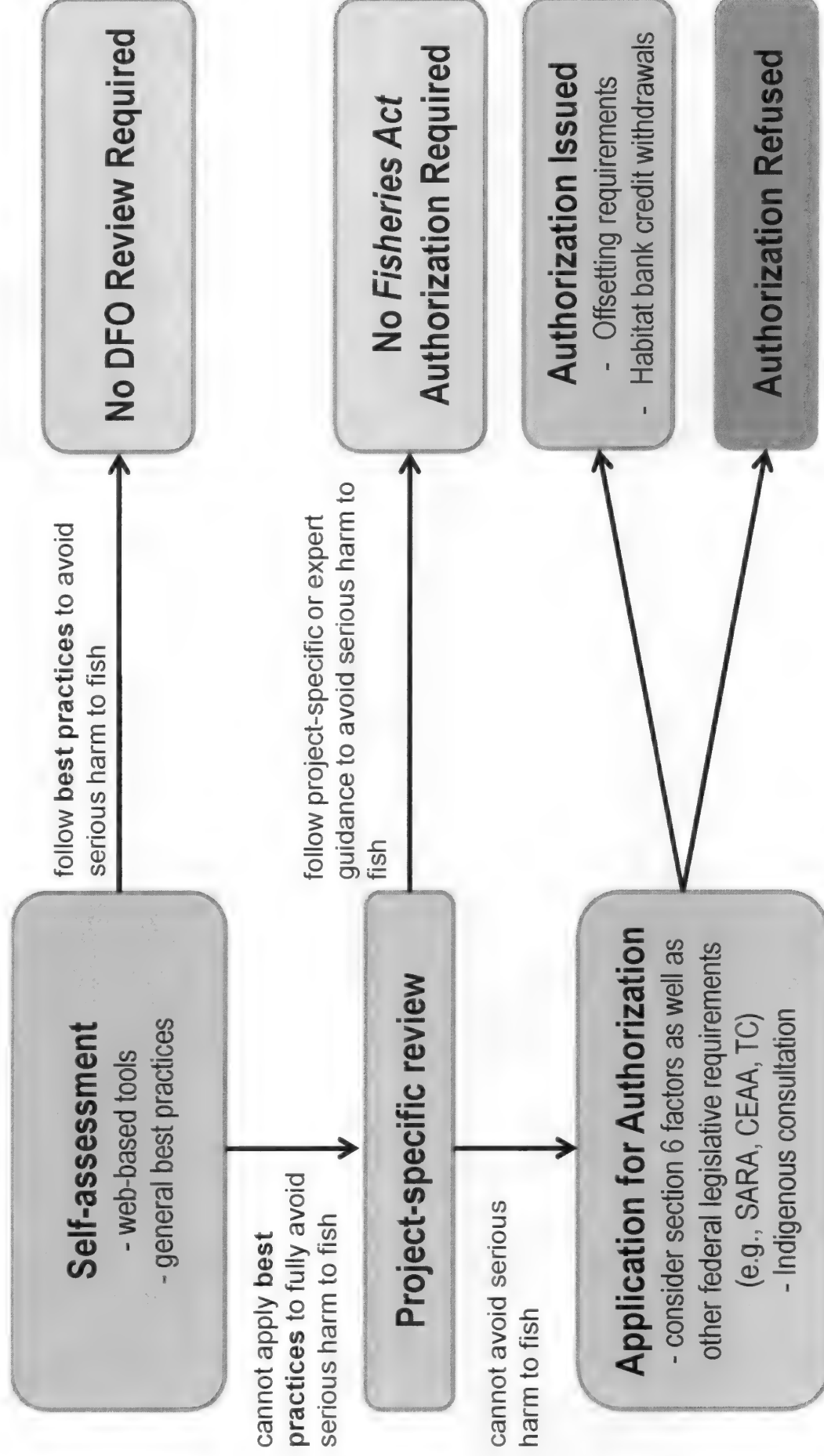


Fisheries Act Authorizations

- DFO's Fisheries Protection Program (FPP) is responsible for the administration of the fisheries protection provisions of the *Fisheries Act* (FA) and certain permitting provisions under the *Species At Risk Act* (SARA).
- Section 35 of the FA prohibits "*serious harm to fish that are part of a commercial, recreational or Aboriginal fishery, or to fish that support such a fishery.*"
- *Serious harm to fish* is defined as "*the death of fish, or any permanent alteration to or destruction of fish habitat*".
- Proponents are responsible for avoiding and mitigating *serious harm to fish*, and when they are unable to completely avoid or mitigate *serious harm to fish* their projects will normally require an Authorization under Section 35(2) of the FA in order to proceed.



Regulatory Review Process





Offsetting Measures

After efforts to avoid and mitigate impacts, residual *serious harm to fish* should be addressed through offsetting measures. Offsetting measures are developed and implemented to counterbalance the *serious harm to fish* resulting from a project, with the goal of maintaining or improving fisheries productivity.

Guiding Principles:

1. Offsetting measures must support fisheries management objectives or local restoration priorities.
2. Benefits from offsetting measures must balance project impacts.
3. Offsetting measures must provide additional benefits to the fishery.
4. Offsetting measure must generate self-sustaining benefits over the long term.



Fisheries and Oceans
Canada

Pêches et Océans
Canada

Proponent-Led Habitat Banking



What is a Proponent-led Habitat Bank?

- A freshwater or marine area that is a wetland, stream, lake, estuary, bay, or other aquatic resource area that has been created, restored, or enhanced by undertaking habitat improvement projects (known as “conservation projects”).
- Conservation projects are established for the purpose of providing offsetting measures for unavoidable residual adverse effects to fish and fish habitat.
- Conservation projects take place in advance of a Proponent requesting an authorization or permit under the *Fisheries Act* and/or *Species at Risk Act*, and enable proponents to establish “habitat credits”.
- Habitat credits may be drawn upon at a later date to counterbalance or offset residual adverse effects of projects on fish and fish habitat.



Conservation Projects

Habitat bank conservation projects must align with the *Fisheries Productivity Investment Policy: A Proponent's Guide to Offsetting*, November 2013.



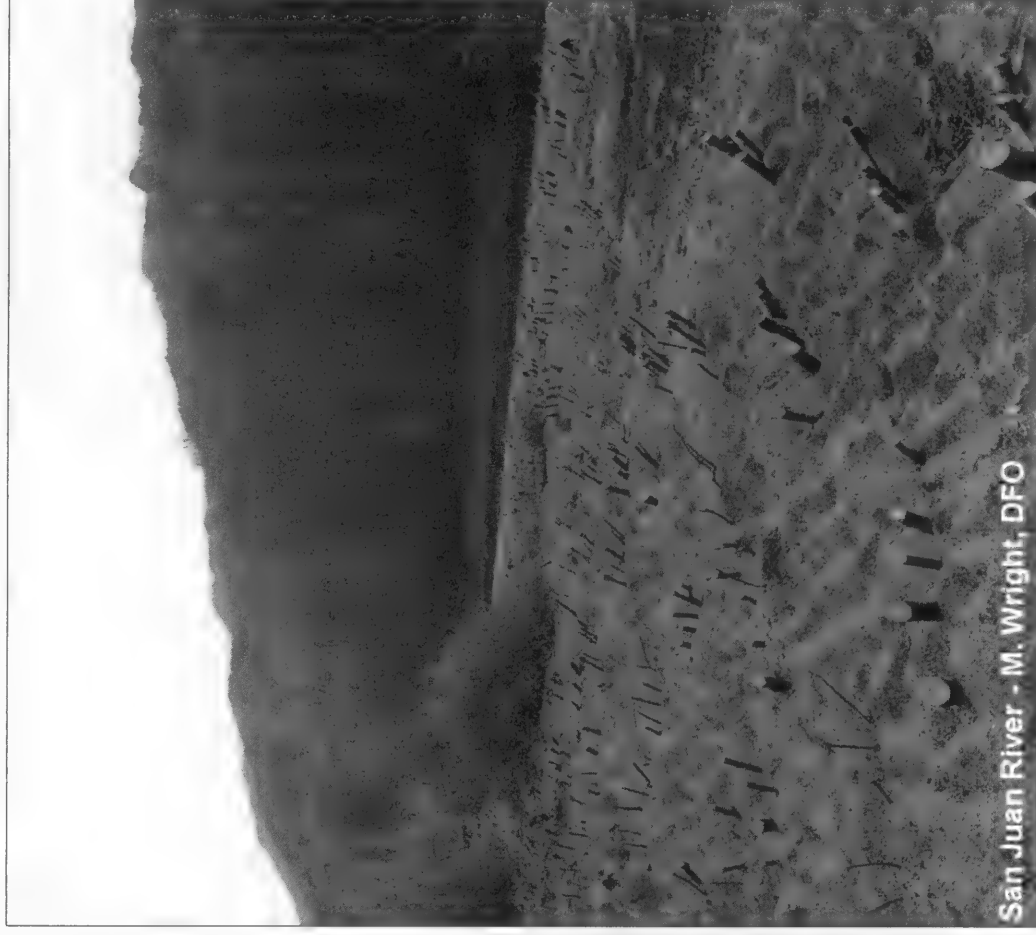
Offsetting measures fall under 3 main categories:

1. Habitat Restoration and Enhancement *
 2. Habitat Creation *
 3. Chemical or Biological Manipulations
- Complementary Measures
 - In-kind and out-of-kind approach

* Habitat Banking is most suited for 1 and 2.



Habitat Restoration and Enhancement

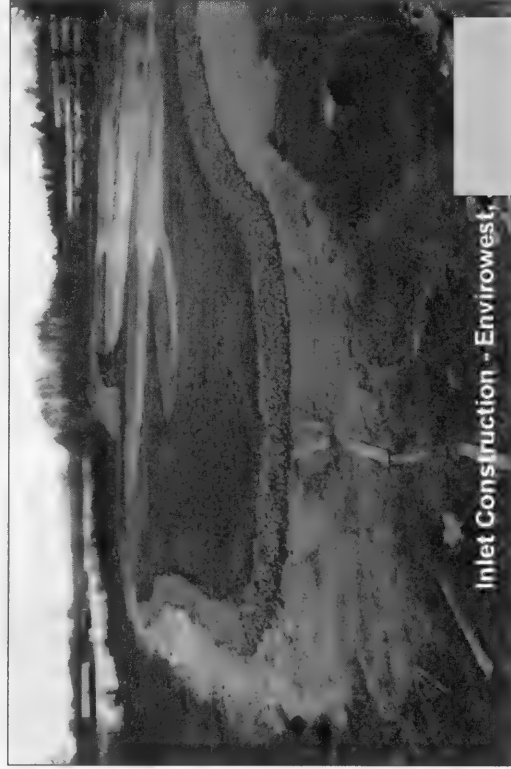


San Juan River - M. Wright, DFO

- The goal of habitat restoration and enhancement is to improve habitat function and productivity through physical manipulation of existing habitat.
- This offsetting measure is ideal in areas where habitat conditions are considered poor or degraded, and provide opportunity for the most benefit.
 - ✓ River bank stabilization
 - ✓ Re-vegetation of riparian areas
 - ✓ Removal of anthropogenic barriers to fish migration
 - ✓ Increasing shoreline complexity etc.



Habitat Creation



- Habitat creation is the development or expansion of aquatic habitat into a terrestrial area.
- Generally used when fish habitat that was destroyed or degraded by a project cannot be restored by manipulation of the original or surrounding aquatic habitat.
- ✓ Creation or expansion of:
 - Natural stream channels
 - Side channel habitats
 - Wetlands
 - Bays or marshes

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Habitat Credit Ledger (example)

- Once approved for use, the habitat credit transaction is recorded in a habitat credit ledger; records are maintained by Proponent and DFO.

Habitat Bank:	Habitat Bank X
Organization:	Proponent X
Proponent Contact:	Proponent Contact name
DFO Contact:	DFO Contact name
Habitat Bank Status:	Active *see below for balances
Combined Credit (m2):	16,000

* colour indicates change in credit
salt marsh
brackish marsh
tidal freshwater mudflat
tidal freshwater marsh
subtidal reef

Documentation	Date	File #	Location	Comments	Habitat Type	Planned (m2)	Built (m2)	Confirmed (m2)	Debit (m2)	Credit (m2)
Habitat Banking Credits for Marsh Creation	Date	XX-XXX-XXXX	Location	The credits in the habitat bank are registered in the habitat bank. Credits were given for the construction of marsh benches in Fake Park, along the Fake Arm of the Fake River.	tidal freshwater marsh	5,000	4,500	4,500		4,500
					brackish marsh	2,000	2,000	2,000		2,000
					salt marsh		500	500		500
Marine subtidal reef creation	Date	XX-XXX-XXXX	Location	Project involves the construction of three separate high-value subtidal reef areas off-shore of the mouth of the Fake River. Expected habitat credits include 9,000m2 of subtidal reef to be added to the bank.	subtidal reef	9,000				9,000
									Total:	16,000



Benefits of Habitat Banking

- ✓ Enables proponents with multiple development projects and anticipated future residual impacts on fish and fish habitat to undertake strategic, larger-scale conservation projects.
- ✓ Strategic, larger-scale conservation projects are often more likely to support ecosystem processes, foster biodiversity, and provide opportunities for linking fragmented habitats.
- ✓ Less uncertainty related to the proven effectiveness of the offsetting measures and/or the time required for the offsetting measures to become functional as the conservation projects are built and monitored for effectiveness in advance of impacts from the development project occurring.
- ✓ A proponent-led habitat bank does not commit DFO to the authorization or permitting of any future work, undertaking or activity.



Indigenous Consultation

- When a proponent proposes to use habitat banking credits as part of a request for an authorization, DFO must undertake consultation with potentially affected Indigenous groups in relation to the proposed development project, including the proposed use of the habitat banking credits to meet offsetting requirements.
- Through consultation, DFO will endeavor to understand potential adverse impacts on asserted or established Aboriginal or Treaty rights and, where appropriate, identify ways to minimize those adverse impacts through avoidance, mitigation, or offsetting measures to be incorporated as conditions of Authorization.



Fisheries and Oceans
Canada

Pêches et Océans
Canada

Habitat Banking Arrangements



Habitat Banking Arrangements (HBAs)

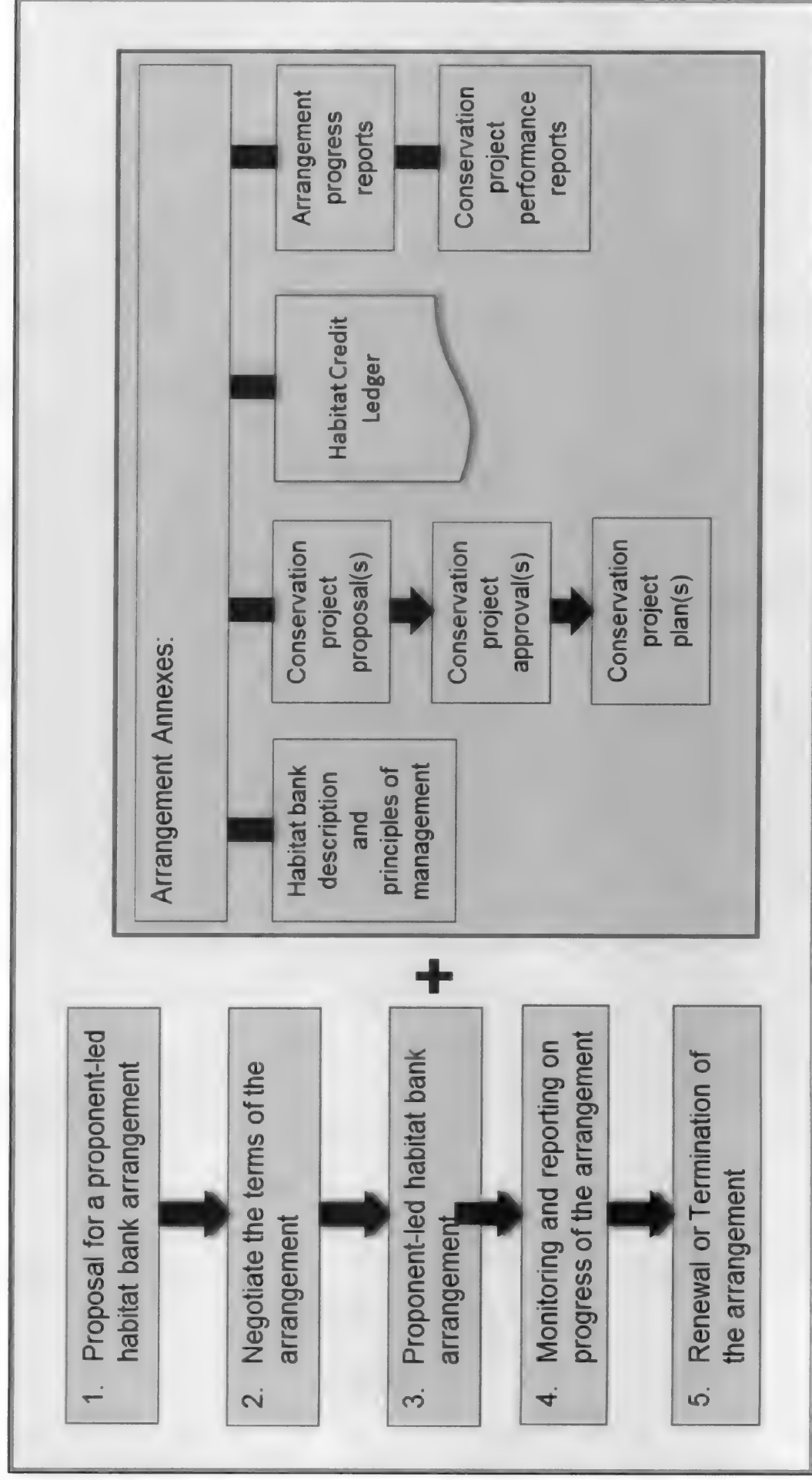
- A Habitat Banking Arrangement (HBA) between DFO and a Proponent forms the basis for the management and administration of the Habitat Bank.



- The terms and conditions of the HBA are based on a DFO template, applicable to all proponents for the time period specified in the Arrangement.



Process to Develop an Arrangement





Indigenous Engagement

- Establishment and management of a proponent-led habitat bank must include the engagement of Indigenous groups that may be affected by the proponent-led habitat bank's conservation projects and the fisheries benefits they generate.
- Aboriginal and Treaty rights must be considered in the planning and establishment of a proponent-led habitat bank, and in particular planning the conservation projects and defining the service area* to ensure there are no resulting adverse impacts on Aboriginal or Treaty rights.

* service area = a geographical area or boundary that encompasses the habitat bank's conservation project(s) that can reasonably be expected to provide appropriate offsetting. It must be based on the consideration of ecological criteria and fisheries management objectives, including the survival and recovery of aquatic species at risk and, if applicable, jurisdictional boundaries.

Thorpe, Suzanne

From: Olson, Charlotte <Charlotte.Olson@portvancouver.com>
Sent: Tuesday, August 21, 2018 7:40 AM
To: Nutton, Byron; Thorpe, Suzanne; Scoble, Jemma; Ruffo, Gord; Smith, Shona
Subject: RE: Prep Meeting with VFPA-DFO for September-October Habitat Bank Engagement Meetings - Agenda
Attachments: 2018-08-22-03-600-VFPA-AGENDA-VFPA and DFO Liaison Meeting_No 47-Rev0.docx

Good morning all, please find attached a suggested Agenda to guide our meeting at VFPA tomorrow. We can adjust to suit with your input at the meeting as well.

See you tomorrow, Charlotte

-----Original Appointment-----

From: Olson, Charlotte
Sent: July-16-18 12:41 PM
To: Olson, Charlotte; Nutton, Byron; Thorpe, Suzanne; Scoble, Jemma; Ruffo, Gord; Smith, Shona
Subject: CONFIRMED-Prep Meeting with VFPA-DFO for September-October Habitat Bank Engagement Meetings
When: August-22-18 9:00 AM-11:00 AM (UTC-08:00) Pacific Time (US & Canada).
Where: VFPA office – Pacific A Room (8) – 100 The Pointe, 999 Canada Place

Meeting Room = Pacific A Room at VFPA

Moved to 9am start at VFPA, thank you – please accept to update your calendars

All – Please accept this invite as confirmation of a prep. meeting at VFPA to prepare for our September/October Information Sessions with Indigenous Groups.
An Agenda will be provided in advance.

Charlotte



Meeting Agenda

Habitat Enhancement Program

DFO / VFPA Liaison Meeting:

Prep Meeting for Habitat Bank Arrangement Engagement

Meeting No. 47

Location: VFPA Vancouver (Pacific A Meeting Room)

Date: Wednesday August 22, 2018 (09:00 AM– 11:00 AM)

Attendees:

Byron Nutton (DFO)
Suzanne Thorpe (DFO)
Shona Smith (DFO)

Charlotte Olson (VFPA)
Gord Ruffo (VFPA)
Jemma Scoble (VFPA)

AGENDA:

- 1. Introductions**
- 2. Recap of Engagement Plan**
 - a) Plan
 - b) Review of information packages sent to Indigenous groups
- 3. Planning for Fall Meetings (Sept 11 & Oct 11)**
 - a) Attendees
 - b) Meeting Format
 - c) Facilitator
 - d) Presenters
 - e) Materials
 - f) Logistics
- 4. Next Steps/Actions**

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From: Olson, Charlotte
To: Nutton, Byron; Thorpe, Suzanne; Smith, Shona; Ruffo, Gord; Scoble, Jemma
Subject: Aug 22 DFO-VFPA Meeting - Actions and Follow Up
Date: 2018-August-22 2:31:55 PM
Attachments: image002.png
2018-08-22-03-600-VFPA-HEP-DFO Meeting Summary-Actions-Rev0.docx

Good afternoon all,

Thanks for meeting at VFPA this morning – we appreciate you coming over in person to plan for our fall engagement.

Attached is the current Actions List recorded from our meeting, please don't hesitate to respond if I missed anything or captured something in error.

Also, here is a short summary of our September 11 planning/discussion from today:

- Attendees for DFO: Byron, Suzanne and Shona – Byron and/or Suzanne will be available for the fall sessions, Byron is main point of contact (for any other meetings)
- Attendees for VFPA: Charlotte, Gord, Jemma and [REDACTED]
- Presenters for DFO: Byron
- Presenters for VFPA: Charlotte & Gord
- Facilitator: Jemma Scoble with administrative support for note taking/record keeping
- Materials: VFPA to prepare hardcopy packages for all attendees, DFO to provide all DFO materials by Sept 5 (so VFPA can print out)
- Logistics: VFPA to coordinate rooms, snacks & lunch, and all A/V support etc.

I have sent a separate invite for our debrief call/meeting on Sept 27/18 at 3pm, so that is booked in our calendars.

Regards,

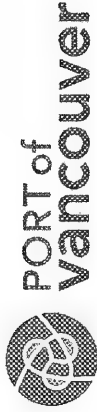
Charlotte Olson P.Geo., PMP
Manager, Infrastructure Habitat Development

s.19(1)



Vancouver Fraser Port Authority
100 The Pointe, 999 Canada Place
Vancouver, B.C. Canada V6C 3T4

P: 604.665.9590 | CELL: 604.349.4111
portvancouver.com



Habitat Enhancement Program

MEETING SUMMARY/ACTIONS: DFO/VFPA Regular Liaison Meeting – Focus on Indigenous Engagement Plan/Materials for Fall Consultation

DATE: August 22, 2018 (0900-1100am)

LOCATION: VFPA Office (Pacific A Meeting Room)

NEXT MEETING – September 27/18

ATTENDEES:

DFO Representatives:

Byron Nutton (BN), DFO
Suzanne Thorpe (ST), DFO
Shona Smith (SM), DFO

Habitat Enhancement Program/VFPA Representatives:

Gord Ruffo, VFPA (GR); Charlotte Olson, VFPA (CO); Jemma Scoble, VFPA (JS)

Charlotte Olson & Gord Ruffo led the meeting following the August 22, 2018 Agenda.

CURRENT MEETING ACTIONS:

No.	DESCRIPTION:	ACTION BY:	ACTION DUE DATE:	COMMENTS:
August 22/18 Meeting Actions:				
1.	VFPA and DFO to each prepare an anticipated draft internal "Q & A" document, and share with each other by Aug 31/18	VFPA (CO) DFO (BN)	Target by Aug 31/18	VFPA to prepare anticipated Q&A for VFPA questions, and DFO to prepare anticipated Q&A for DFO questions
2.	DFO to send a final copy of the DFO presentation for the Sept 11 meeting to CO; and any other hardcopy materials required to be printed	DFO (BN)	Sept 5/18	VFPA will print out all materials for Sept 11, so please provide any materials required by <u>Sept 5</u> to VFPA
3.	VFPA to confirm the draft Agenda for the Sept 11 Meeting, and provide draft to DFO for review & input	VFPA (CO)	Target by Aug 31/18	

Habitat Enhancement Program

No.	DESCRIPTION:	ACTION BY:	ACTION DUE DATE:	COMMENTS:
4.	DFO to review the Aug 14 version draft of the VFPA-DFO habitat banking Arrangement, as emailed to Byron on Aug 15	DFO (BN)	TBD by BN	VFPA has formally reviewed and responded to the last draft provided by DFO, Aug 14 version now with DFO for review & response.
Previous 2018 Meeting Actions:				
5.	DFO (BN) review VFPA's 2017 Annual Reports submitted to DFO. Confirm current Dec 31/17 bank ledger totals, and acknowledge by letter (or equivalent) to VFPA the 2017 habitat credit deposit for New Brighton Park	DFO (BN)	TBD by BN	BN to please provide acknowledgement (in writing) to VFPA of deposit of New Brighton Park habitat credits to VFPAs habitat bank in 2017; previous deposit process with Holly Pulvermacher (DFO) included a letter issued by DFO to VFPA confirming habitat bank credit totals as reported in Annual Report.

Smith, Shona

Subject: CONFIRMED-Prep Meeting with VFPA-DFO for September-October Habitat Bank Engagement Meetings
Location: VFPA office – Pacific A Room (8) – 100 The Pointe, 999 Canada Place
Start: Wed 8/22/2018 9:00 AM
End: Wed 8/22/2018 11:00 AM
Recurrence: (none)
Meeting Status: Accepted
Organizer: Olson, Charlotte

Meeting Room = Pacific A Room at VFPA

Moved to 9am start at VFPA, thank you – please accept to update your calendars

All – Please accept this invite as confirmation of a prep. meeting at VFPA to prepare for our September/October Information Sessions with Indigenous Groups.
An Agenda will be provided in advance.

Charlotte



Meeting Agenda

Habitat Enhancement Program

DFO / VFPA Liaison Meeting: Prep Meeting for Habitat Bank Arrangement Engagement

Meeting No. 47

Location: VFPA Vancouver (Pacific A Meeting Room)

Date: Wednesday August 22, 2018 (09:00 AM– 11:00 AM)

Attendees:	Byron Nutton (DFO)	Charlotte Olson (VFPA)
	Suzanne Thorpe (DFO)	Gord Ruffo (VFPA)
	Shona Smith (DFO)	Jemma Scoble (VFPA)

AGENDA:

- 1. Introductions**
- 2. Recap of Engagement Plan**
 - a) Plan
 - b) Review of information packages sent to Indigenous groups
- 3. Planning for Fall Meetings (Sept 11 & Oct 11)**
 - a) Attendees
 - b) Meeting Format
 - c) Facilitator
 - d) Presenters
 - e) Materials
 - f) Logistics
- 4. Next Steps/Actions**

MEETING SUMMARY/ACTIONS: DFO/VFPA Regular Liaison Meeting – Focus on Indigenous Engagement Plan/Materials for Fall Consultation
DATE: August 22, 2018 (0900-1100am)

LOCATION: VFPA Office (Pacific A Meeting Room)

NEXT MEETING – October consultation sessions

ATTENDEES:
DFO Representatives:

Byron Nutton (BN), DFO
Suzanne Thorpe (ST), DFO
Shona Smith (SM), DFO

Habitat Enhancement Program/VFPA Representatives:

Gord Ruffo, VFPA (GR); Charlotte Olson, VFPA (CO); Jemma Scoble, VFPA (JS)

Charlotte Olson & Gord Ruffo led the meeting following the August 22, 2018 Agenda.

CURRENT MEETING ACTIONS:

No.	DESCRIPTION:	ACTION BY:	ACTION DUE DATE:	COMMENTS:
August 22/18 Meeting Actions:				
1.	VFPA and DFO to each prepare an anticipated draft internal "Q & A" document, and share with each other by Aug 31/18	VFPA (CO) DFO (BN)	Complete	VFPA & DFO each prepared a Q&A and shared in advance of the first session. Closed.
2.	DFO to send a final copy of the DFO presentation for the Sept 11 meeting to CO; and any other hardcopy materials required to be printed	DFO (BN)	Complete	DFO confirmed final deck and VFPA printed out all materials for Sept 11 meeting. Closed.
3.	VFPA to confirm the draft Agenda for the Sept 11 Meeting, and provide draft to DFO for review & input	VFPA (CO)	Complete	VFPA sent draft Agenda to DFO, and Agenda was used Sept 11



Habitat Enhancement Program

No.	DESCRIPTION:	ACTION BY:	ACTION DUE DATE:	COMMENTS:
4.	DFO to review the Aug 14 version draft of the VFPA-DFO habitat banking Arrangement, as emailed to Byron on Aug 15	DFO (BN)	TBD by BN	VFPA has formally reviewed and responded to the last draft provided by DFO, Aug 14 version now with DFO for review & response.
Previous 2018 Meeting Actions:				
5.	DFO (BN) review VFPA's 2017 Annual Reports submitted to DFO. Confirm current Dec 31/17 bank ledger totals, and acknowledge by letter (or equivalent) to VFPA the 2017 habitat credit deposit for New Brighton Park	DFO (BN)	TBD by BN	BN to please provide acknowledgement (in writing) to VFPA of deposit of New Brighton Park habitat credits to VFPAs habitat bank in 2017; previous deposit process with Holly Pulvermacher (DFO) included a letter issued by DFO to VFPA confirming habitat bank credit totals as reported in Annual Report.

Document Released Under the Access to Information Act / Document divulgué en vertu de la Loi sur l'accès à l'information

From: Olson, Charlotte
To: Nutton, Byron; Thorpe, Suzanne; Smith, Shona
Cc: Ruffo, Gord; Scoble, Jemma
Subject: FW: DFO Responses to Questions Regarding Habitat Banking - December 2015
Date: 2018-August-29 3:48:32 PM
Attachments: 2015-12-14 FNs Qs re Habitat Banking Policy and Procedures.docx

Hi Byron and all

Please find below and attached an email from Holly Pulvermacher sent in 2015, where she was answering questions from Aboriginal groups received regarding habitat banking.

This may be helpful for you, as you prepare your draft Q&A's in prep for our engagement this fall.

Just making sure you all have this, as it is a good indication of what has been asked of DFO in the past, and your responses for reference.

Thanks!

Charlotte Olson P.Geo., PMP
Manager, Infrastructure Habitat Development

CELL: 604.349.4111

From: Pulvermacher, Holly [<mailto:Holly.Pulvermacher@dfo-mpo.gc.ca>]
Sent: Monday, December 14, 2015 9:55 AM
To: [REDACTED]
Cc: Scoble, Jemma
Subject: DFO Responses to Questions Regarding Habitat Banking

Good Morning,

Thank you once again for your questions of Fisheries and Oceans Canada (DFO) – Fisheries Protection Program (FPP) regarding habitat banking and how your Nation is involved in the process. My sincerest apologies for our delayed response. As you are aware, it was our hope that additional Policy Guidance related to Habitat Banking would be available this fall that would provide further clarity and information that may address the questions you have raised. While this is not yet available, we propose to avoid any further delays and address your questions related to Habitat Banking based on current policy and guidance. Please note that this guidance may require updating as National continues to develop Habitat Banking policies and procedures that support its administration by the Fisheries Protection Program.

As DFO has received a number of related questions posed by First Nations in regards to Habitat Banking, we have taken the liberty of expanding our response to you today to include these additional questions and answers. This additional information is pertinent to understanding DFO's administration of the Fisheries Productivity Investment Policy and Fisheries Act related to projects involving Habitat Banking, and how and when these processes result in First Nations consultation.

In addition to the questions and answers herein, additional information related to FPP regulatory reviews of works, undertaking or activities - including habitat restoration and enhancement projects - can be found on our [Projects Near Water Web-page](#).

In regards to opportunities to meet to discuss Habitat Banking, DFO recommends that any future meetings occur after the release of DFO's additional habitat banking guidance and supporting

science.

Thank-you for your questions. I hope that we have been able to provide you with some further clarity surrounding Habitat Banking.

Regards,

Holly Pulvermacher

Senior Fisheries Protection Biologist | Biologiste principal de la protection des pêches

Fisheries Protection Program | Programme de Protection des Pêches

Fisheries and Oceans Canada | Pêches et Océans Canada

Pacific Region | Région du Pacifique

Government of Canada | Gouvernement du Canada

3190 Hammond Bay Road, Nanaimo, BC V9T 6N7

holly.pulvermacher@dfo-mpo.gc.ca | Tel: 250-756-7032 | Fax: 250-756-7229

FPP National Website – Projects Near Water: <http://www.dfo-mpo.gc.ca/pnw-ppe/index-eng.html>

PPP site web national - Projets Près de L'eau: <http://www.dfo-mpo.gc.ca/pnw-ppe/index-fra.html>

No information has been removed or severed from this page

December 14th 2015

Fisheries and Oceans Canada's (DFO) response to questions related to DFO engagement in the Port Metro Vancouver (PMV) led Habitat Enhancement Program ("Habitat Bank")

1. What is the process by which habitat/fisheries credit values for proposed habitat banking projects are determined. (i.e. how are credit values determined, who determines the habitat/fisheries credit and who approves this?)

A: The value of enhanced or created fish habitat is based on the net increase in fish habitat quantity and quality achieved by creating or improving fish habitat. Preliminary guidance provided by DFO Science (see this link: http://www.dfo-mpo.gc.ca/csas-sccs/publications/resdocs-docrech/2014/2014_109-eng.pdf) and the Offsetting Policy, currently guide decisions related to Habitat Banking.

The value of the created or enhanced habitat is based on the relative productivity of different types of habitat in conjunction with a set of factors which influence the functioning of the habitat (e.g. level of prior degradation of the site, rarity of the habitat, importance to the species, etc.). General ratios are used as a starting point, and were arrived at through discussions between DFO and PMV. The final 'value' of a habitat enhancement project; however, is ultimately determined at the time that the credit is proposed as offsetting for serious harm which occurs during the request for an authorization process.

2. Are Aboriginal Groups involved in the DFO credit determination process?.

A: The current Working Agreement with PMV does not include provisions for others to be involved in the preliminary banking development process. However, where DFO contemplates conduct, DFO will consult with affected Aboriginal groups as to the potential impacts of the project on their rights, and whether the proposed offset addresses those impacts (e.g. when an Authorization is determined to be necessary - either to carry out the habitat enhancement or creation project itself or for proposed serious harm to fish requesting withdrawal of offsetting 'credits' from the habitat bank).

3. What is the process for Aboriginal consultation when Fisheries Act Authorizations (FAA) are being contemplated by DFO. Specifically:

a) How does the DFO FAA process work?

A: Works, undertakings or activities that are likely to result in serious harm to fish require a Paragraph 35(2)(b) Fisheries Act Authorization. Proponents must submit an application for authorization including the information and documentation prescribed in the Applications for Authorization under Paragraph 35(2)(b) of the Fisheries Act Regulations (the "Regulations"). The Regulations require the applicant include an offsetting plan detailing how the serious harm

to fish will be offset. Once an application is submitted to DFO, the review and processing of the application is undertaken under prescribed time limits. DFO's review takes into consideration measures to avoid, mitigate and offset serious harm to fish. DFO also considers the potential adverse impacts to Aboriginal and Treaty rights and will consult with potentially affected Aboriginal groups correspondingly.

b) How and when are Aboriginal groups consulted through this DFO-led process?

A: When DFO is contemplating issuing a Paragraph 35(2)(b) Fisheries Act Authorization for serious harm to fish that has the potential to adversely impact Aboriginal and Treaty rights, DFO provides notice to potentially affected Aboriginal groups and extends a request for consultation. The purpose of this contact is to discuss the proposed work, undertaking or activity for which an authorization is being sought, as well as the proposed measures to avoid, mitigate and offset serious harm to fish. The consultation is to confirm that the proposed measures to avoid, mitigate and offset serious harm to fish are sufficient to address impacts on Aboriginal and Treaty rights.

c) How is this process the same or different if the fisheries/habitat offsets are to be withdrawn from a habitat bank?

A: The consultation process will be the same regardless of the source of the offsetting measures, including offsetting measures generated through a habitat bank.

d) Is the process a "notification" to Aboriginal groups or is it "involvement" – please explain how DFO leads this engagement.

As stated above, when DFO is contemplating issuing a Paragraph 35(2) Fisheries Act authorization for a work, undertaking or activity that results in serious harm to fish that has the potential to adversely impact Aboriginal or Treaty Rights, DFO begins consultation by contacting potentially affected First Nations. The purpose of this contact is to discuss the proposed work, undertaking or activity for which an authorization is being sought as well as the proposed measures to avoid, mitigate and offset serious harm to fish. The consultation is to seek the views of potentially affected Aboriginal groups regarding potential adverse impacts to their claims or established rights. Consultation will also verify that measures are being taken to address adverse impacts on Aboriginal and Treaty rights.

4. What is the extent of DFO's involvement in the selection, review and approval of proposed habitat banking projects?

A: The Working Agreement Concerning the Procedures for Development and Operation of the Port Metro Vancouver Habitat Bank between Vancouver Fraser Port Authority and Fisheries and Oceans Canada (July 31 2012), herein referred to as "the Working Agreement", outlines the parties agreed upon approach to the selection, prioritization and advancement of potential projects for inclusion in the Port Metro Vancouver's Habitat Enhancement Program (the

"Habitat Bank"). In the context of DFO's engagement in Port Metro Vancouver's Habitat Bank, DFO's role is to confirm the eligibility of proposed habitat banking projects as offsetting and for banking purposes as defined by the Fisheries Productivity Investment Policy: A Proponent's Guide to Offsetting, Fisheries and Oceans Canada, November 2013, (the "Offsetting Policy") and conformity of those projects with the conditions of the Working Agreement.

5. Does this involvement include any engagement with potentially affected First Nations?

A: The current Working Agreement does not involve DFO engagement with other parties; however, where DFO contemplates conduct, such as the issuance of a Paragraph 35(2)(b) Fisheries Act Authorization in relation to a Habitat Bank (i.e. for an offsetting project or a project intending to withdraw credits from the habitat bank), DFO would consult the affected Aboriginal groups.

6. Once projects are approved, how and when are they accounted for in the 'bank'? Does DFO track this information, or is this strictly PMV's responsibility?

A: As noted, DFO provides PMV with confirmation that the proposed fish habitat creation or enhancement project meets the Offsetting Policy and adheres to the conditions of the Working Agreement. Preliminary credit values (e.g. 500m² of intertidal marsh) are based on preliminary design proposals and documented in the detailed records for the bank upon confirmation, and adjusted based on final engineering surveys and field results confirming the total quantity and quality of habitat. Further monitoring occurs at the time when habitat credits are being contemplated for offsetting of residual serious harm to fish resulting from a future work, undertaking or activity in order to confirm the 'final' quantity and quality of habitat available.

Port Metro Vancouver provides detailed accounting for credit deposit and withdrawal transactions related to the Habitat Bank. Detailed transaction reports are received, verified and retained by DFO for accuracy and long-term accounting purposes.

7. When PMV wants to 'draw' against the balance of banked lands, what role, if any, does DFO have?

A: The PMV habitat bank is intended to create and improve fish habitat, and to use the benefits of these fish habitat improvement projects to offset the residual serious harm to fish that results from future projects. The PMV Habitat Enhancement Program banks net increases in fish habitat quantity and quality resulting from the creation or enhancement of fish habitat. Currently, the metrics used to measure and track these credits are square meters, type and quality of habitat. As outlined in the Working Agreement, and reflective of offsetting and habitat banking policies, DFO retains the authority to determine if the amount and type of habitat proposed is of sufficient quantity and quality, and whether the type of habitat and species or stocks benefitting from the habitat enhancement project suitably offset the residual serious harm to fish. Proponents are directed to meet the principles and objectives (s. 2.2) of the Offsetting Policy when developing or proposing offsetting for serious harm.

It is important to note that the Working Agreement does not guarantee the authorization of future serious harm. All projects will be reviewed on their own merit and a decision to authorize a project will be made independently of the existence of a habitat bank.

8. Does DFO do any monitoring on the health and ecological functioning of banked lands or features?

A: As noted above, the value of the fish habitat in a habitat bank is measured in terms of the net increase in fish habitat quantity and quality. Monitoring of the overall health and functionality of the fish habitat is used to verify the current and long term value of the fish habitat in the habitat bank. DFO has contributed to the development of the monitoring program carried out by PMV's qualified environmental professionals, and relies on those results to confirm the efficacy and functioning of the habitat bank. In addition, DFO may also undertake monitoring of works, undertakings or activities for which a regulatory decision was made. This monitoring may include an evaluation of the health and functioning of the habitat.

9. Does DFO have a role in ensuring compliance [i.e., the proponent's compliance with post-construction monitoring requirements]?

A: In relation to the PMV habitat bank, and consistent with regional and local monitoring plans, DFO may undertake compliance monitoring of works, undertakings or activities that may result in serious harm to fish, to confirm compliance with conditions of the authorization issued or any standards or guidelines being applied.

10. If so, is there an opportunity to delegate any of that responsibility to First Nations, who may have knowledge of the area(s)?

A: DFO does not currently have a mechanism to delegate these responsibilities.

Nutton, Byron

This is not an actual record. It has been included to provide web addresses of hyperlinks included in the previous document.

Applications for Authorization under Paragraph 35(2)(b) of the Fisheries Act Regulations

<https://laws-lois.justice.gc.ca/eng/regulations/SOR-2013-191/>

Publically accessible

The Working Agreement Concerning the Procedures for Development and Operation of the Port Metro Vancouver Habitat Bank between Vancouver Fraser Port Authority and Fisheries and Oceans Canada (July 31 2012)

<https://porttalk.ca/document/show/355>

NOTE: This link was not functional at the time the ATIP was submitted, so the referenced document has been printed from DFO file holdings and included with the submission.

Fisheries Productivity Investment Policy: A Proponent's Guide to Offsetting, Fisheries and Oceans Canada, November 2013

<http://www.dfo-mpo.gc.ca/pnw-ppe/offsetting-guide-compensation/index-eng.html>

Publically accessible

**Pages 1071 to / à 1079
are duplicates of
sont des duplicatas des
pages 190 to / à 198**

Smith, Shona

From: Smith, Shona
Sent: Wednesday, August 29, 2018 11:46 AM
To: Richardson, Tessa
Subject: RE: Centerm Expansion Project

Ok. Yes, I know. I told her that. She still asked that I send information. Maybe I should put her in touch with Byron?

Shona Smith

Fisheries Protection Biologist, DFO
Tel: 250-756-7256

From: Richardson, Tessa
Sent: 2018–August-29 11:43 AM
To: Smith, Shona
Subject: RE: Centerm Expansion Project

No I don't believe so.....the channel is still not proposed as part of the offsetting, so any discussion would be through habitat banking.

Tessa Richardson

Fisheries Protection Biologist, Fisheries Protection Program
Fisheries and Oceans Canada/Government of Canada
Tessa.Richardson@dfo-mpo.gc.ca / 604-362-4645

From: Smith, Shona
Sent: 2018–August-29 11:42 AM
To: Richardson, Tessa
Subject: RE: Centerm Expansion Project

Yes, it was a phone call. I will prepare information.

I will look through the additional information that was sent in response to our questions, but did we receive any additional information on that channel after they had additional information collected?

Shona Smith

Fisheries Protection Biologist, DFO
Tel: 250-756-7256

From: Richardson, Tessa
Sent: 2018–August-29 11:35 AM
To: Smith, Shona
Subject: RE: Centerm Expansion Project

Was this a phone call? Can you prepare information to answer matqui's questions?

Tessa Richardson

Fisheries Protection Biologist, Fisheries Protection Program

Fisheries and Oceans Canada/Government of Canada
Tessa.Richardson@dfo-mpo.gc.ca / 604-362-4645

From: Smith, Shona
Sent: 2018–August-29 11:33 AM
To: Richardson, Tessa
Subject: FW: Centerm Expansion Project

Hey Tessa,

Let me know when you may have time to discuss this.

Thanks,

Shona Smith
Fisheries Protection Biologist, DFO
Tel: 250-756-7256

From: [REDACTED]
Sent: 2018–August-29 11:32 AM
To: Smith, Shona
Cc: [REDACTED]
Subject: Centerm Expansion Project

August 29, 2018

Shona

Matsqui first Nation questioned the dredging areas on the map and the infilling.

Matsqui asked about the offsetting project of the marine channel- Shona will send information

Matsqui would be interested in the training and employment opportunities on the project or/and on the container stations after the project has been completed.

Other information Shona also works on side with Jemma Scoble in which Matsqui may have discussed centerm expansion Project issues and plans.

[REDACTED]
Matsqui First Nation
[REDACTED]

s.19(1)

From: Thorpe, Suzanne
To: Smith, Shona; Nutton, Byron
Subject: RE: DRAFT Handout - VFPA Engagement Sessions
Date: 2018-August-31 2:09:02 PM
Attachments: 2018-08-31_VFPA-DFO_HabitatBankingEngagement.docx

Hi;

Additions & information still forthcoming for the DFO program updates. Thanks for starting the template Shona, I've copy/pasted into it.

FAQs won't be done until Tuesday earliest – VFPA indicated they need these by end of next week but I plan to have these completed by Tuesday, Wednesday latest (after review by others).

Byron - If we wish to add any "background/ backup" slides, we need to have them to the Port by end of day Sept 5th. If you are happy with the deck as is, then what we already sent can remain final.

☺

S.

From: Smith, Shona
Sent: 2018-August-31 1:50 PM
To: Nutton, Byron
Cc: Thorpe, Suzanne
Subject: DRAFT Handout - VFPA Engagement Sessions

Hey Byron,

Can you have a look at this and let me know if this is in line with what you are thinking of for a handout for the engagement sessions?

Shona Smith

Fisheries Protection Biologist | Fisheries Protection Program
Fisheries and Oceans Canada | Government of Canada
3190 Hammond Bay Road, Nanaimo BC V9T 6N7
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Projects Near Water website:

<http://www.dfo-mpo.gc.ca/pnw-ppe/index-eng.html>

DFO Engagement Session Additional Information & Updates

FISHERIES ACT REVIEW

As part of the Government of Canada's Review of Environmental and Regulatory Processes, a review of the 2012 changes to the *Fisheries Act* is underway. Including how to:

- Restore lost protections and incorporate modern safeguards;
 - Provide better certainty for industry;
 - Ensure the long term sustainability of marine resources; and
 - Make sure that the *Fisheries Act* provides strong and meaningful protection of fish and fish habitats.
- On February 6, 2018, the Government of Canada introduced a bill in Parliament that proposes amendments to the *Fisheries Act*.

For more information on the Fisheries Act Review, please visit the following links:

<http://www.dfo-mpo.gc.ca/campaign-campagne/fisheries-act-loi-sur-les-peches/proposed-proposed-eng.html>

<http://www.dfo-mpo.gc.ca/campaign-campagne/fisheries-act-loi-sur-les-peches/index-eng.html>

WILD SALMON POLICY

Canada's Policy for Conservation of Wild Pacific Salmon (WSP) represents Fisheries and Oceans Canada's commitment to maintain healthy and diverse salmon populations and their habitats that will support sustainable fisheries now, and meet the needs of future generations. WSP places conservation of salmon and their habitat as the first priority for resource management and encourages people throughout British Columbia and the Yukon to contribute to decisions about salmon conservation that reflect ecological and societal values.

Fisheries and Oceans Canada (DFO) does not and cannot implement the WSP without the help of others and therefore is working collaboratively with key partners to develop a 5-year implementation plan.

For more information on the Wild Salmon Implementation plan, please visit the following link:

<http://www.pac.dfo-mpo.gc.ca/consultation/wsp-pss/index-eng.html>

ROBERTS BANK TERMINAL 2 PROJECT

The Roberts Bank Terminal 2 Project is a proposed container terminal at Roberts Bank in the Fraser River estuary. The project is currently undergoing an environmental assessment by review panel pursuant to the Canadian Environmental Assessment Act. Project information and notices of opportunities to comment are available on the Canadian Environmental Assessment Agency's public registry. DFO is participating in the environmental assessment by providing expert information and advice on fish, fish habitat, and marine mammals to the review panel. The review panel is currently determining if it has sufficient information on the record to proceed to public hearings for the project.

Link to Registry: <https://www.ceaa-acee.gc.ca/050/evaluations/proj/80054?culture=en-CA>

TRANSMOUNTAIN PIPELINE PROJECT (TMX)

The Trans Mountain Expansion Project (TMEP or Project) is a proposed expansion of the existing Kinder Morgan pipeline system between Edmonton, Alta. and Burnaby, B.C. It involves approximately 987 km of new pipeline, new and modified facilities, and the reactivation of 193 km of existing pipeline, which would effectively triple the system's capacity. Also proposed is the expansion of the Westridge Marine Terminal (Terminal) located in Burrard Inlet to accommodate 34 tankers per month (up from 5 per month).

On November 29, 2016, the Governor in Council (GIC) approved the Project and issued an Order in Council approving the Project subject to the 157 conditions identified by the National Energy Board (NEB). On January 9, 2017, the Province of British Columbia issued an Environmental Assessment Certificate for the Project subject to an additional 37 conditions. On September 8, 2017, DFO issued a *Fisheries Act* authorization for construction of the Terminal expansion in Burnaby, B.C., which began construction in December 2017.

On August 30th, the Federal Court of Appeal released its decision with respect to judicial review applications challenging the November 29, 2016 federal approval of the Trans Mountain Expansion (TMX) Project. The Federal Court of Appeal has ordered that the Order in Council approving the TMX Project be set aside. The Federal Crown (including DFO) is currently reviewing the Federal Court's decision and reasons for judgment. Trans Mountain has released a statement that it is currently taking measures to suspend construction related activities on the Project in a safe and orderly manner.

Link to Registry: <https://www.ceaa-acee.gc.ca/050/evaluations/proj/80054?culture=en-CA>

SPECIES AT RISK

Update forthcoming.

Thorpe, Suzanne

From: Olson, Charlotte <Charlotte.Olson@portvancouver.com>
Sent: Friday, August 31, 2018 2:25 PM
To: Nutton, Byron; Thorpe, Suzanne; Smith, Shona; Ruffo, Gord; Scoble, Jemma
Cc: Caillin Katnich
Subject: RE: Aug 22 DFO-VFPA Meeting - Actions and Follow Up - VFPA Q&As
Attachments: 2018-08-30-03-600-VFPA HEP 2018 Key Messages and Q&A-Rev0.pdf

Hi all, as follow up to our meeting actions – please see attached the current drafted VFPA Q&A Questions that we intend to use (internally) for our Sept/Oct meetings.

A friendly reminder to please send your final powerpoint deck and any materials you require for printing by EOD Wed Sept 5th to us please, so we can print and be prepared for our Sept 11 meeting.
Next week we will aim to send you all a draft proposed Agenda for Sept 11.

Thanks, and have a great long weekend all!
Charlotte

Charlotte Olson P.Geo., PMP
Manager, Infrastructure Habitat Development

CELL: 604.349.4111

From: Olson, Charlotte
Sent: Wednesday, August 22, 2018 2:32 PM
To: 'Nutton, Byron' <Byron.Nutton@dfo-mpo.gc.ca>; 'Thorpe, Suzanne' <Suzanne.Thorpe@dfo-mpo.gc.ca>; Smith, Shona <Shona.Smith@dfo-mpo.gc.ca>; Ruffo, Gord <Gord.Ruffo@portvancouver.com>; Scoble, Jemma <Jemma.Scoble@portvancouver.com>
Subject: Aug 22 DFO-VFPA Meeting - Actions and Follow Up

Good afternoon all,
Thanks for meeting at VFPA this morning – we appreciate you coming over in person to plan for our fall engagement.

Attached is the current Actions List recorded from our meeting, please don't hesitate to respond if I missed anything or captured something in error.

Also, here is a short summary of our September 11 planning/discussion from today:

- Attendees for DFO: Byron, Suzanne and Shona – Byron and/or Suzanne will be available for the fall sessions, Byron is main point of contact (for any other meetings)
- Attendees for VFPA: Charlotte, Gord, Jemma and [REDACTED]
- Presenters for DFO: Byron
- Presenters for VFPA: Charlotte & Gord
- Facilitator: Jemma Scoble with administrative support for note taking/record keeping
- Materials: VFPA to prepare hardcopy packages for all attendees, DFO to provide all DFO materials by Sept 5 (so VFPA can print out)
- Logistics: VFPA to coordinate rooms, snacks & lunch, and all A/V support etc.

I have sent a separate invite for our debrief call/meeting on Sept 27/18 at 3pm, so that is booked in our calendars.

Regards,

Charlotte Olson P.Geo., PMP
Manager, Infrastructure Habitat Development



Vancouver Fraser Port Authority
100 The Pointe, 999 Canada Place
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Vancouver Fraser Port Authority
Habitat Enhancement Program
Key messages and Q&A
UPDATDE: August 30, 2018

The following key messages and Q&A are for the Vancouver Fraser Port Authority's (VFPA) use as part of Aboriginal consultation regarding a new Habitat Bank Arrangement between VFPA and Fisheries and Oceans Canada (DFO). DFO has developed its own Q&A document for questions pertaining to DFO's role in this consultation process and a new Habitat Bank Arrangement.

Key messages

- The Habitat Enhancement Program was developed by the Vancouver Fraser Port Authority as a part of a broader strategy around gateway growth, acknowledging that habitat sites may be required to offset effects from port infrastructure development.
- The program looks to balance infrastructure development opportunities with a healthy environment.
- Enhancing fish and wildlife habitat supports the port authority's approach to sustainability. Specifically, we implement well-planned strategies to manage habitat conservation, restoration and habitat enhancement.
- The program creates and enhances fish and wildlife habitat for habitat banking purposes, use as offsetting for port infrastructure development, or a combination of both.
- The program currently operates under an Agreement with Fisheries and Oceans Canada (DFO).
- The port authority started enhancing habitat in the 1990s. In the past five years, we have:
 - Created or enhanced 13 habitat sites that would cover an area of approximately 10 hectares, or more than 13 football fields
 - Completed feasibility work for over 100 hectares of potential habitat enhancement

Q&A

1. What is the Habitat Enhancement Program?

- The Vancouver Fraser Port Authority's Habitat Enhancement Program focuses on creating and enhancing fish and wildlife habitat in advance of port infrastructure projects.
- The program looks to balance infrastructure development opportunities with a healthy environment
- The program creates and enhances fish and wildlife habitat for habitat banking purposes, use as offsetting for port infrastructure development, or a combination of both
- Creating habitat ahead of development projects allows for the habitat site to be verified, prior to it being credited to offset habitat loss.
- The program currently operates under an Agreement with DFO.

2. When and why was the Habitat Enhancement Program started?

- The port authority started enhancing habitat in the 1990s.
- In 2013, the Habitat Enhancement Program was developed by the Vancouver Fraser Port Authority as a part of a broader strategy around gateway growth, acknowledging that habitat sites may be required to offset effects from port infrastructure development.

3. How does the habitat bank work?

- The Vancouver Fraser Port Authority's habitat bank was created through a formal agreement with DFO
- Basic administration of the habitat bank includes the following:
 - VFPA engages with DFO on potential habitat banking sites, in advance of their construction, to ensure the project meets the requirements of the DFO-VFPA habitat bank agreement
 - DFO reviews and confirms that a proposed site meets the requirements of the agreement, prior to VFPA proceeding
 - Once a habitat site has been created, enhanced or restored, VFPA provides as-built information to demonstrate the spatial area that has been constructed by habitat type
 - DFO then acknowledges these specific habitat areas as a "**deposit**" in the VFPA habitat bank, by habitat type (at a specific site)
 - The habitat site is then maintained on a habitat bank ledger, and is monitored annually by VFPA, with reports provided to DFO, as required by the agreement
 - With approval from DFO, "**withdrawals**" of habitat can subsequently be made from the bank, when required, to offset fish habitat that may be affected by VFPA's (or its tenants' and terminals') projects, within a *Fisheries Act* Authorization scenario.
- DFO is the primary regulator of the port authority's habitat bank
 - For a port authority-led infrastructure project, at the time of "withdrawal", the port authority will request for DFO consideration of a potential habitat bank withdrawal, including providing an assessment of the stability and value of the particular habitat. The total credit value of a particular habitat banked site is determined immediately prior to its application as credit for a development project
 - DFO has the authority within a *Fisheries Act* Authorization scenario to determine if the proposed habitat bank withdrawal is suitable for offsetting the development project for which the *Fisheries Act* Authorization is being requested

4. How does the port authority's habitat bank compare to other habitat banking programs in Canada?

- The Vancouver Fraser Port Authority's habitat bank is the largest habitat bank in Canada.
- The port authority is recognized as a leader in the development of offsetting through habitat banking.

Vancouver Fraser Port Authority
Habitat Enhancement Program
Key messages and Q&A
UPDATDE: August 30, 2018

- This recognition has been stated by regulators such as DFO, environmental organizations such as Ducks Unlimited and the Pacific Salmon Foundation, and local government such as the City of Delta and City of Richmond.
- The port authority started enhancing habitat in the 1990s. In the past five years, we have:
 - Created or enhanced 13 habitat sites that would cover an area of approximately 10 hectares, or more than 13 football fields
 - Completed feasibility work for over 100 hectares of potential habitat enhancement

5. How do you choose project sites?

- Potential habitat development sites are selected based on several primary considerations, including the following:
 - **Habitat need:** Priority is placed on sites that support high quality habitat, or where there is a need for more habitat that supports species of interest or species at risk.
 - **Habitat productivity:** Emphasis is placed on choosing sites for habitat creation or restoration that support multiple ecological functions.
 - **Feasibility:** Sites are assessed based on their feasibility for attaining functional and stable habitat within the surrounding environment.
 - **Cost:** Sites chosen create the most habitat value for dollars spent.
- **Level of effort for engagement and consultation with the public and Aboriginal groups** are also factors, as are **significant economic opportunities with Aboriginal groups** and joint ventures on construction, monitoring, etc.

6. How long do habitat development projects take from start to finish?

- An average project takes five years to get from identification of a habitat enhancement opportunity to construction completion.
- The following are the six phases of a habitat enhancement project:
 - **Identification** of a habitat enhancement opportunity
 - **Project definition**, including initial design and engagement with identified stakeholders
 - **Design development**, including public consultation and finalization of a detailed project design
 - **Permitting and approvals**
 - **Construction**
 - **Post-construction**, including environmental monitoring to ensure the project objectives are being met

7. How does the Habitat Enhancement Program relate to the Roberts Bank Terminal 2 Project?

- The Habitat Enhancement Program was developed by VFPA a part of a broader strategy around gateway growth, acknowledging that habitat sites may be required to offset effects from port infrastructure development.

Vancouver Fraser Port Authority
Habitat Enhancement Program
Key messages and Q&A
UPDATDE: August 30, 2018

- The program is a proactive measure intended to provide a balance between a healthy environment and future development that may be required for port operations.
- The Environmental Impact Statement for the Roberts Bank Terminal 2 Project (RBT2) concluded that no off-site mitigation was required to mitigate impacts, and as such, the port authority does not anticipate needing to withdraw credits from the habitat bank managed by the port authority's Habitat Enhancement Program
- RBT2 is currently in the Panel Review phase. Project offsetting requirements will be determined, in part, by the federal Minister of Environment following the Panel's review, but also through any Authorizations issued by DFO under the provisions of the Fisheries Act.

8. How does the Habitat Enhancement Program relate to the Centerm Expansion Project?

- The port authority is proposing to develop the Maplewood Marine Restoration Project for two purposes:
 - For use as a fisheries habitat offset for the proposed Centerm Expansion Project, pending approval from Fisheries and Oceans Canada (DFO)
 - To proactively create functioning habitat to deposit to the VFPA habitat bank for future development that may be required for port operations.

Thorpe, Suzanne

From: Thorpe, Suzanne
Sent: Tuesday, September 4, 2018 3:33 PM
To: Runciman, Bruce
Cc: Smith, Shona
Subject: Final draft of FAQs and DFO Info-updates
Attachments: 2018-09-04_DFO Habitat Banking Engagement_v2_final draft.docx; 2018-09-04_VFPA-DFO_FrequentlyAskedQuestions_v2_final draft.docx

Importance: High

Hi Bruce;

The attached documents are now in final draft. I still have one paragraph in the FAQs highlighted in yellow – I modified it as we are not engaging on any authorizations, but rather the use of the credits may be commented on.

Titles/ layout of handouts? Thoughts ... ? Please LMK if you have comments/ concerns ...

[REDACTED] I will send the information to VFPA this evening if you have a chance to review, revise and, hopefully, concur on both items – I've reattached both final draft documents for your ease of use.

Thanks,

Suzanne Thorpe

Partnerships, Standards and Guidelines/ Partenariats, normes et lignes directrices
Fisheries Protection Program/ Programme de protection des pêches
Ecosystem Management Branch / Direction de la gestion des écosystèmes
Fisheries and Oceans Canada (DFO), Pacific Region/ Pêches et Océans Canada, Région du Pacifique
Government of Canada/ Gouvernement du Canada
200-401 Burrard Street, Vancouver BC V6C 3S4 (13th Floor)/ 401 Burrard Street, bureau 200, Vancouver (C.-B.) V6C 3S4
Telephone: (604) 666.3512

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DFO Information & Program Updates

FISHERIES ACT REVIEW

As part of the Government of Canada's Review of Environmental and Regulatory Processes, a review of the 2012 changes to the *Fisheries Act* is underway. Including how to:

- Restore lost protections and incorporate modern safeguards;
- Provide better certainty for industry;
- Ensure the long term sustainability of marine resources; and
- Make sure that the *Fisheries Act* provides strong and meaningful protection of fish and fish habitats.
- On February 6, 2018, the Government of Canada introduced a bill in Parliament that proposes amendments to the *Fisheries Act*.

Consultation Currently Underway

In July 2018, Fisheries and Oceans Canada released a Consultation paper on the proposal to amend the Applications for Authorization Regulations. The Consultation Paper builds on the feedback received through ongoing engagement with Indigenous peoples, provinces, territories, partners, stakeholders and other Canadians, related to review the 2012-13 changes to the Fisheries Act which began in 2016 and on the proposed amendments in Bill C-68.

Feedback on the Consultation Paper is available for comment until September 21st, 2018.

Fall 2018 Engagement Sessions

Engagement on other regulations, program and policy to support the amended Fisheries Act is expected to begin in the fall of 2018.

For more information on the Fisheries Act Review, please visit the following links:

<http://www.dfo-mpo.gc.ca/campaign-campagne/fisheries-act-loi-sur-les-peches/proposed-propose-eng.html>

<http://www.dfo-mpo.gc.ca/campaign-campagne/fisheries-act-loi-sur-les-peches/index-eng.html>

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Fisheries and Oceans Canada (DFO) does not and cannot implement the WSP without the help of others and therefore is working collaboratively with key partners to develop a 5-year implementation plan.

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The Trans Mountain Expansion Project (TMEP or Project) is a proposed expansion of the existing Kinder Morgan pipeline system between Edmonton, Alta. and Burnaby, B.C and the expansion of the Westridge Marine Terminal (Terminal) located in Burrard Inlet.

In November 2016, the Governor in Council (GIC) approved the Project and issued an Order in Council subject to conditions as identified by the National Energy Board (NEB). In January 2017, the Province of British Columbia issued an Environmental Assessment Certificate for the Project, subject to additional conditions. Subsequently, in September 2017, DFO issued a *Fisheries Act* authorization for construction of the Terminal expansion in Burnaby, B.C., which began construction in December 2017.

After judicial review of applications challenging the federal approval of the Trans Mountain Expansion (TMX) Project, the Federal Court of Appeal has recently ordered that the Order in Council approving the TMX Project be set aside. The Federal Crown (including DFO) is currently reviewing the Federal Court's decision and reasons for judgment. Trans Mountain has released a statement that it is currently taking measures to suspend construction related activities on the Project in a safe and orderly manner.

Link to Registry: <https://www.ceaa-acee.gc.ca/050/evaluations/proj/80054?culture=en-CA>

SPECIES AT RISK PROGRAM

The purpose of Fisheries and Oceans Canada (DFO)'s species at risk program is to prevent listed species from becoming extirpated or extinct, and to secure the necessary actions for their protection and recovery. While Environment and Climate Change Canada has the lead responsibility for administering the *Species at Risk Act*, aquatic species fall under the jurisdiction of DFO. DFO is committed to protecting aquatic species at risk in a cooperative manner that includes consultation and cooperation with Indigenous Peoples and stakeholders.

Currently there are 52 aquatic species at risk listed on Schedule 1 of the *Species at Risk Act (SARA)*, of which 25 are Endangered, 6 are Threatened, and 21 are Special Concern. There are another 19 species that have been assessed as being at risk by the Committee on the Status of Wildlife in Canada and that are currently going through the process to determine whether they will be added to SARA Schedule 1.

For more information on DFO's species at risk program see: <http://www.dfo-mpo.gc.ca/species-especes/sara-lep/index-eng.html>.

For more information on the government of Canada's approach to protecting and recovering species at risk, see the Species at Risk Public Registry:

<http://www.sararegistry.gc.ca/default.asp?lang=en&n=24F7211B-1>.

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Frequently Asked Questions on Proponent-led Habitat Banking

1. What is a Proponent-led Habitat Bank?

A: A proponent-led habitat bank is a formalized approach for creating offsets for impacts to aquatic areas using various offsetting methods such as habitat creation, enhancement or restoration, which are used to achieve offsetting in advance of a project's impact. The habitat bank may be a section of lake, river, or ocean which is designated and managed to enhance or improve fisheries productivity. The habitat bank provides a counterbalance to future residual adverse effects on fish habitat by way of credited valuation of the fish habitat developed which can later be withdrawn from the bank.

Proponent-led habitat banks can be beneficial where:

- a large number of impacts, each affecting a small geographic area, arise from a single large project; or,
- *serious harm to fish* may result from a number of small projects.

2. What are habitat credits?

A: The benefits accumulated in the habitat bank are counted as credits, while *serious harm to fish* caused by a project or projects are considered debits. A proponent that has established the bank may “withdraw” credits from the habitat bank to offset the *serious harm to fish* resulting from their project. When the balance of habitat credits in the habitat bank reaches zero, the bank is closed and no more withdrawals can be made.

3. What is the process by which fish habitat credit values for proposed habitat banking projects are determined (i.e., how are credit values determined, who determines the fish habitat credit and who approves this)?

A: The value of enhanced or created fish habitat is based on the net increase in fish habitat quantity and quality achieved by creating or improving fish habitat. Preliminary guidance provided by DFO Science http://www.dfo-mpo.gc.ca/csas-sccs/publications/resdocs-docrech/2014/2014_109-eng.html and the Fisheries Productivity Investment Policy: A Proponent's Guide to Offsetting (the “Offsetting Policy”) <http://www.dfo-mpo.gc.ca/pnw-ppe/offsetting-guide-compensation/index-eng.html>, currently guide decisions related to Habitat Banking.

The value of the created or enhanced habitat is based on the relative productivity of different types of habitat in conjunction with a set of factors which influence the functioning of the habitat (e.g., level of prior degradation of the site, rarity of the habitat, importance to the species, etc.). General ratios are used as a starting point, and are arrived at through discussions between DFO and Proponents. The final ‘value’ of a habitat enhancement project is ultimately determined *at the time that the credit is proposed as offsetting for serious harm to fish*, which occurs at the time of a Proponent's request for project authorization.

4. What is the process for Aboriginal consultation with regard to Habitat Banking?

A: Works, undertakings or activities that are likely to result in serious harm to fish require authorization under paragraph 35(2)(b) *Fisheries Act*. Proponents must submit an application for authorization including the information and documentation prescribed in the *Applications for Authorization under*

Paragraph 35(2)(b) of the Fisheries Act Regulations (the “Regulations”) <http://laws-lois.justice.gc.ca/eng/regulations/SOR-2013-191/>. The Regulations require that the applicant include an offsetting plan detailing how serious harm to fish will be offset. Once an application is submitted to DFO, the review and processing of the application is undertaken under prescribed time limits. DFO’s review takes into consideration measures to avoid, mitigate and offset serious harm to fish. As per section 6.1 of the *Fisheries Act*, DFO must consider the potential adverse impacts to Aboriginal and Treaty rights and will consult with potentially affected Aboriginal groups correspondingly.

With regard to the VFPA-DFO Habitat Banking Arrangement (i.e., the Agreement between the Proponent and DFO to establish a Habitat Bank), DFO is participating in the VFPA consultation sessions to provide early engagement and opportunity for discussion with Indigenous groups on the Arrangement and potential future use of the bank as habitat credit.

5. Once projects are approved, how are they accounted for in the Habitat Bank?

After a Proponent proposes a habitat bank project, DFO may provide the Proponent with confirmation that the proposed fish habitat creation or enhancement project meets the Offsetting Policy and adheres to the conditions of the a Habitat Banking Arrangement. Preliminary credit values are based on preliminary design proposals and are documented in the detailed records for the bank upon confirmation; credits are adjusted based on final engineering surveys and field results confirming the total quantity and quality of habitat developed.

At the time when habitat credits are being contemplated for the offsetting of a project’s residual serious harm to fish the Proponent is responsible to confirm the ‘final’ quantity and quality of habitat in the Habitat Bank. A detailed accounting of credit deposit and withdrawal transactions is maintained the Proponent. Detailed transaction reports are received, verified and retained by DFO for accuracy and long-term accounting purposes.

6. When can a Proponent use Habitat Banking credits for their project(s)?

It is important to note that a Habitat Bank Arrangement does not guarantee the authorization of future serious harm to fish. All projects will be reviewed on their own merit and a decision to authorize a project will be made independently of the existence of a habitat bank. The value of the fish habitat in a habitat bank is measured in terms of the net increase in fish habitat quantity and quality and requires verification prior to withdrawal. Prior to authorizing the work, undertaking or activity for which a regulatory decision is being contemplated, DFO may undertake an independent evaluation of the habitat bank to ensure compliance and confirm the habitat bank is functioning as intended.

7. What types of projects are accepted in a Habitat Bank?

Offsetting measures must support fisheries management objectives or local restoration priorities, be balanced with project impacts, provide tangible benefits to the fishery, and generate self-sustaining benefits over the long term. Offsetting measures are most ideal in areas where habitat conditions are considered poor or degraded, and provide opportunity for the most benefit to fish.

Habitat banking projects range significantly in size and scope. Projects to stabilize river banks or increase shoreline complexity, remove anthropogenic barriers to fish passage, enhance or construct

wetland or marsh habitat, and restore or create stream channels are examples of habitat banking projects that DFO may determine are acceptable.

8. Is DFO confident regarding the use of Habitat Banking as a means of Offsetting?

Habitat banks have been used in Canada several years and are a commonly used internationally as a best practice for implementing offset projects as conditions of regulatory approvals. Proponent-led habitat banking is currently supported by DFO policy guidance and is currently being contemplated for use more formally under the proposed revised *Fisheries Act*, with the development of new Regulations. The benefits of habitat banks are well documented in primary literature. A study titled "Fish Habitat Banking in Canada: Opportunities and Challenges" (2011) <http://www.dfo-mpo.gc.ca/Library/347440.pdf> includes an evaluation of habitat banking, outlines the advantages and challenges, and makes recommendations to assist in the formation of a habitat banking program that maximizes the known advantages and minimizes the issues and challenges that have been encountered with existing habitat banking programs.

No information has been removed or severed from this page

Smith, Shona

From: Smith, Shona
Sent: Tuesday, September 4, 2018 3:59 PM
To: Runciman, Bruce
Subject: RE: Edits

Hi Bruce,

What number can I reach you at?

Shona Smith

Fisheries Protection Biologist, DFO
Tel: 250-756-7256

From: Runciman, Bruce
Sent: 2018-September-04 3:43 PM
To: Thorpe, Suzanne
Cc: Smith, Shona
Subject: RE: Edits

Thanks Suzanne (and Shona!).

The FAQ document looks good (i.e., *2018-09-04_VFPA-DFO_FrequentlyAskedQuestions (2).docx*), provided Shona's edits are incorporated and the highlighted text removed as you suggested. Good call. This seems a reasonable document to share in advance of your habitat banking consultations next week. Please go ahead and provide that to the VFPA as they requested and as was agreed at your last meeting.

Though factually accurate, I don't see the direct relevance or benefit of the broader issues document to your planned habitat banking consultations (i.e., *DFO Habitat Banking Engagement.docx*). Certainly Fisheries Act Review, WSP, SARA are core matters for our department that could be raised by external parties as questions in any venue, so it's great to be able to speak to them generally. However, as none of those topics have direct bearing on habitat banking, I wouldn't recommend or support sharing written responses to potential questions on them with the VFPA in advance of meetings. This would apply doubly to the Roberts Bank and TMX briefs, both of which are hot-button topics that should only be addressed by approved DFO spokespeople. So ... all that said ... please don't send the broader issues DFO Habitat Banking Engagement.docx to the VFPA or anyone else outside the department.

Hope that works? Sorry to squash release of the one document to VFPA. Happy to discuss if you like. Let me know?

Thanks again, Bruce.

From: Smith, Shona
Sent: September 4, 2018 2:32 PM
To: Thorpe, Suzanne
Cc: Runciman, Bruce
Subject: Edits

Hey Suzanne,

Just a few edits.

Also attached is the external handout information for FAR, WSP, and RBT2

Shona Smith

Fisheries Protection Biologist | Fisheries Protection Program
Fisheries and Oceans Canada | Government of Canada
3190 Hammond Bay Road, Nanaimo BC V9T 6N7
shona.smith@dfo-mpo.gc.ca | Tel: 250-756-7256

Biologiste de la protection des pêches | Programme de protection des pêches
Pêches et Océans Canada | Gouvernement du Canada
3190 Hammond Bay Road, Nanaimo BC V9T 6N7
shona.smith@dfo-mpo.gc.ca | Téléphone 250-756-7256

Projects Near Water website:

<http://www.dfo-mpo.gc.ca/pnw-ppe/index-eng.html>

No information has been removed or severed from this page

Smith, Shona

From: Smith, Shona
Sent: Tuesday, September 4, 2018 2:32 PM
To: Thorpe, Suzanne
Cc: Runciman, Bruce
Subject: Edits
Attachments: 2018-09-04_VFPA-DFO_FrequentlyAskedQuestions (2).docx; DFO Habitat Banking Engagement.docx

Follow Up Flag: Follow up
Flag Status: Completed

Hey Suzanne,

Just a few edits.

Also attached is the external handout information for FAR, WSP, and RBT2

Shona Smith

Fisheries Protection Biologist | Fisheries Protection Program
Fisheries and Oceans Canada | Government of Canada
3190 Hammond Bay Road, Nanaimo BC V9T 6N7
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Frequently Asked Questions on Proponent-led Habitat Banking

1. What is a Proponent-led Habitat Bank?

A: A proponent-led habitat bank is a formalized approach for creating offsets for impacts to aquatic areas using various offsetting methods such as habitat creation, enhancement or restoration, which are used to achieve offsetting in advance of a project's impact. The habitat bank may be a section of lake, river, or ocean which is designated and managed to enhance or improve fisheries productivity. The habitat bank provides a counterbalance to future residual adverse effects on fish habitat by way of credited valuation of the fish habitat developed which can later be withdrawn from the bank.

Proponent-led habitat banks can be beneficial where:

- a large number of impacts, each affecting a small geographic area, arise from a single large project; or,
- *serious harm to fish* may result from a number of small projects.

2. What are habitat credits?

A: The benefits accumulated in the habitat bank are counted as credits, while *serious harm to fish* caused by a project or projects are considered debits. A proponent that has established the bank may "*withdraw*" credits from the habitat bank to offset the *serious harm to fish* resulting from their project. When the balance of habitat credits in the habitat bank reaches zero, the bank is closed and no more withdrawals can be made.

3. What is the process by which fish habitat credit values for proposed habitat banking projects are determined (i.e., how are credit values determined, who determines the fish habitat credit and who approves this)?

A: The value of enhanced or created fish habitat is based on the net increase in fish habitat quantity and quality achieved by creating or improving fish habitat. Preliminary guidance provided by DFO Science http://www.dfo-mpo.gc.ca/csas-sccs/publications/resdocs-docrech/2014/2014_109-eng.html and the Fisheries Productivity Investment Policy: A Proponent's Guide to Offsetting (the "Offsetting Policy") <http://www.dfo-mpo.gc.ca/pnw-ppe/offsetting-guide-compensation/index-eng.html>, currently guide decisions related to Habitat Banking.

The value of the created or enhanced habitat is based on the relative productivity of different types of habitat in conjunction with a set of factors which influence the functioning of the habitat (e.g., level of prior degradation of the site, rarity of the habitat, importance to the species, etc.). General ratios are used as a starting point, and are arrived at through discussions between DFO and Proponents. The final 'value' of a habitat enhancement project is ultimately determined *at the time that the credit is proposed as offsetting for serious harm to fish*, which occurs at the time of a Proponent's request for project authorization.

4. What is the process for Aboriginal consultation with regard to Habitat Banking?

A: Works, undertakings or activities that are likely to result in serious harm to fish require authorization under paragraph 35(2)(b) *Fisheries Act*. Proponents must submit an application for authorization including the information and documentation prescribed in the *Applications for Authorization under*

Paragraph 35(2)(b) of the Fisheries Act Regulations (the "Regulations") <http://laws-lois.justice.gc.ca/eng/regulations/SOR-2013-191/>. The Regulations require that the applicant include an offsetting plan detailing how serious harm to fish will be offset. Once an application is submitted to DFO, the review and processing of the application is undertaken under prescribed time limits. DFO's review takes into consideration measures to avoid, mitigate and offset serious harm to fish. As per section 6.1 of the *Fisheries Act*, DFO must consider the potential adverse impacts to Aboriginal and Treaty rights and will consult with potentially affected Aboriginal groups correspondingly.

With regard to the VFPA-DFO Habitat Banking Arrangement (i.e., the Agreement between the Proponent and DFO to establish a Habitat Bank), DFO is participating in the VFPA consultation sessions to provide early engagement and opportunity for discussion with Aboriginal Indigenous groups on the Arrangement and potential future issuance of authorization using the bank as habitat credit.

5. Once projects are approved, how are they accounted for in the Habitat Bank?

After a Proponent proposes a habitat bank project, DFO may provide the Proponent with confirmation that the proposed fish habitat creation or enhancement project meets the Offsetting Policy and adheres to the conditions of the a Habitat Banking Arrangement. Preliminary credit values are based on preliminary design proposals and are documented in the detailed records for the bank upon confirmation; credits are adjusted based on final engineering surveys and field results confirming the total quantity and quality of habitat developed.

At the time when habitat credits are being contemplated for the offsetting of a project's residual serious harm to fish the Proponent is responsible to confirm the 'final' quantity and quality of habitat in the Habitat Bank. A detailed accounting of credit deposit and withdrawal transactions is maintained the Proponent. Detailed transaction reports are received, verified and retained by DFO for accuracy and long-term accounting purposes.

6. When can a Proponent use Habitat Banking credits for their project(s)?

It is important to note that a Habitat Bank Arrangement does not guarantee the authorization of future serious harm to fish. All projects will be reviewed on their own merit and a decision to authorize a project will be made independently of the existence of a habitat bank. The value of the fish habitat in a habitat bank is measured in terms of the net increase in fish habitat quantity and quality and requires verification prior to withdrawal. Prior to authorizing the work, undertaking or activity for which a regulatory decision is being contemplated, DFO may undertake an independent evaluation of the habitat bank to ensure compliance and confirm the habitat bank is functioning as intended.

7. What types of projects are accepted in a Habitat Bank?

Offsetting measures must support fisheries management objectives or local restoration priorities, be balanced with project impacts, provide tangible benefits to the fishery, and generate self-sustaining benefits over the long term. Offsetting measures are most ideal in areas where habitat conditions are considered poor or degraded, and provide opportunity for the most benefit to fish.

Habitat banking projects range significantly in size and scope. Projects to stabilize river banks or increase shoreline complexity, remove anthropogenic barriers to fish passage, enhance or construct

wetland or marsh habitat, and restore or create stream channels are examples of habitat banking projects that DFO may determine are acceptable.

8. Is DFO confident regarding the use of Habitat Banking as a means of Offsetting?

Habitat banks have been used in Canada several years and are a commonly used internationally as a best practice for implementing offset projects as conditions of regulatory approvals. Proponent-led habitat banking is currently supported by DFO policy guidance and is currently being contemplated for use more formally under the proposed revised *Fisheries Act*, with the development of new Regulations. The benefits of habitat banks are well documented in primary literature. A study titled "Fish Habitat Banking in Canada: Opportunities and Challenges" (2011) <http://www.dfo-mpo.gc.ca/Library/347440.pdf> includes an evaluation of habitat banking, outlines the advantages and challenges, and makes recommendations to assist in the formation of a habitat banking program that maximizes the known advantages and minimizes the issues and challenges that have been encountered with existing habitat banking programs.

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DFO/VFPA Habitat Banking Engagement Sessions

FISHERIES ACT REVIEW

As part of the Government of Canada's Review of Environmental and Regulatory Processes, a review of the 2012 changes to the *Fisheries Act* is underway. Including how to:

- Restore lost protections and incorporate modern safeguards;
 - Provide better certainty for industry;
 - Ensure the long term sustainability of marine resources; and
 - Make sure that the *Fisheries Act* provides strong and meaningful protection of fish and fish habitats.
- On February 6, 2018, the Government of Canada introduced a bill in Parliament that proposes amendments to the *Fisheries Act*.

Consultation Currently Underway

In July 2018, Fisheries and Oceans Canada released a Consultation paper on the proposal to amend the Applications for Authorization Regulations. The Consultation Paper builds on the feedback received through ongoing engagement with Indigenous peoples, provinces, territories, partners, stakeholders and other Canadians, related to review the 2012-13 changes to the Fisheries Act which began in 2016 and on the proposed amendments in Bill C-68.

Feedback on the Consultation Paper is available for comment until September 21st, 2018.

Fall 2018 Engagement Sessions

Engagement on other regulations, program and policy to support the amended Fisheries Act is expected to begin in the Fall of 2018.

For more information on the Fisheries Act Review, please visit the following links:

<http://www.dfo-mpo.gc.ca/campaign-campagne/fisheries-act-loi-sur-les-peches/proposed-propose-eng.html>

<http://www.dfo-mpo.gc.ca/campaign-campagne/fisheries-act-loi-sur-les-peches/index-eng.html>

WILD SALMON POLICY

Canada's Policy for Conservation of Wild Pacific Salmon (WSP) represents Fisheries and Oceans Canada's commitment to maintain healthy and diverse salmon populations and their habitats that will support sustainable fisheries now, and meet the needs of future generations. WSP places conservation of salmon and their habitat as the first priority for resource management and encourages people throughout British Columbia and the Yukon to contribute to decisions about salmon conservation that reflect ecological and societal values.

Fisheries and Oceans Canada (DFO) does not and cannot implement the WSP without the help of others and therefore is working collaboratively with key partners to develop a 5-year implementation plan.

For more information on the Wild Salmon Implementation plan, please visit the following link:
<http://www.pac.dfo-mpo.gc.ca/consultation/wsp-pss/index-eng.html>

ROBERTS BANK TERMINAL 2 PROJECT

The Roberts Bank Terminal 2 Project is a proposed container terminal at Roberts Bank in the Fraser River estuary. The project is currently undergoing an environmental assessment by review panel pursuant to the Canadian Environmental Assessment Act. Project information and notices of opportunities to comment are available on the Canadian Environmental Assessment Agency's public registry. DFO is participating in the environmental assessment by providing expert information and advice on fish, fish habitat, and marine mammals to the review panel. The review panel is currently determining if it has sufficient information on the record to proceed to public hearings for the project.

Link to Registry: <https://www.ceaa-acee.gc.ca/050/evaluations/proj/80054?culture=en-CA>

Smith, Shona

From: Smith, Shona
Sent: Tuesday, September 4, 2018 11:14 AM
To: Thorpe, Suzanne
Subject: RE: FAQ's
Attachments: DFO Habitat Banking Engagement.docx

Hey. Also, the info sheet for handout, Byron suggested the TMX section be shortened. I will send my latest version with the information I put together.

Shona Smith

Fisheries Protection Biologist, DFO
Tel: 250-756-7256

From: Thorpe, Suzanne
Sent: 2018-September-04 10:00 AM
To: Smith, Shona
Subject: RE: FAQ's

Hey Shona - I tried your line - let's chat later.

I am putting together the FAQs this am.

W/r/t the summaries on program information >>> My take on it: short and sweet – no dates, just current internet links. Materials for distribution have to be prepared and to VFPA EOD today. This includes any changes to the DFO deck the Port already has, but Byron said he was happy with it and he is delivering it at the sessions so I'm leaving it alone.

S.

From: Smith, Shona
Sent: 2018-September-04 9:36 AM
To: Thorpe, Suzanne
Subject: FAQ's

Hey Suzanne,

Let's discuss maybe this afternoon. I had a much longer document, but when I passed it by Byron last week, he didn't think we needed as much detail. He didn't review the WSP stuff. Let me know if you have suggestions.

Shona Smith

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Link to Registry: <https://www.ceaa-acee.gc.ca/050/evaluations/proj/80054?culture=en-CA>

Thorpe, Suzanne

From: Olson, Charlotte <Charlotte.Olson@portvancouver.com>
Sent: Wednesday, September 5, 2018 1:35 PM
To: Thorpe, Suzanne
Subject: RE: Aug 22 DFO-VFPA Meeting - Actions and Follow Up - DFO FAQs

Excellent, thank you!

Charlotte Olson P.Geo., PMP
Manager, Infrastructure Habitat Development

CELL: 604.349.4111

From: Thorpe, Suzanne [mailto:Suzanne.Thorpe@dfo-mpo.gc.ca]
Sent: Wednesday, September 05, 2018 1:00 PM
To: Olson, Charlotte <Charlotte.Olson@portvancouver.com>
Subject: RE: Aug 22 DFO-VFPA Meeting - Actions and Follow Up - DFO FAQs

Thanks Charlotte.

Yes, this is the approved final version.

Suzanne

From: Olson, Charlotte [mailto:Charlotte.Olson@portvancouver.com]
Sent: 2018-September-05 12:54 PM
To: Thorpe, Suzanne; Scoble, Jemma
Cc: Caillin Katnich; Nutton, Byron; Ruffo, Gord; Smith, Shona
Subject: RE: Aug 22 DFO-VFPA Meeting - Actions and Follow Up - DFO FAQs

Thanks Suzanne – your Q&As are received, we will print out hardcopies of those for attendees.

Please confirm that the attached deck dated Aug 8/18 (per below) is the deck you will be presenting on Sept 11, and we are happy to print this out, and have it ready.

Thanks!

Charlotte Olson P.Geo., PMP
Manager, Infrastructure Habitat Development

CELL: 604.349.4111

From: Thorpe, Suzanne [mailto:Suzanne.Thorpe@dfo-mpo.gc.ca]
Sent: Wednesday, September 05, 2018 11:54 AM
To: Olson, Charlotte <Charlotte.Olson@portvancouver.com>; Scoble, Jemma <Jemma.Scoble@portvancouver.com>
Cc: Caillin Katnich <Caillin.Katnich@portvancouver.com>; Nutton, Byron <Byron.Nutton@dfo-mpo.gc.ca>; Ruffo, Gord <Gord.Ruffo@portvancouver.com>; Smith, Shona <Shona.Smith@dfo-mpo.gc.ca>
Subject: RE: Aug 22 DFO-VFPA Meeting - Actions and Follow Up - DFO FAQs

Hi Charlotte and Jemma;

Attached are DFOs FAQs that are intended for external distribution at the VFPA Consultation meetings. The DFO deck submitted to you in August will remain as FINAL.

Let me know if you have any concerns, or require anything from us in advance of September 11th.

Best regards,

Suzanne Thorpe

Partnerships, Standards and Guidelines/ Partenariats, normes et lignes directrices
Fisheries Protection Program/ Programme de protection des pêches
Ecosystem Management Branch / Direction de la gestion des écosystèmes
Fisheries and Oceans Canada (DFO), Pacific Region/ Pêches et Océans Canada, Région du Pacifique
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200-401 Burrard Street, Vancouver BC V6C 3S4 (13th Floor)/ 401 Burrard Street, bureau 200, Vancouver (C.-B.) V6C 3S4
Telephone: (604) 666.3512

From: Olson, Charlotte [<mailto:Charlotte.Olson@portvancouver.com>]
Sent: 2018-August-31 2:25 PM
To: Nutton, Byron; Thorpe, Suzanne; Smith, Shona; Ruffo, Gord; Scoble, Jemma
Cc: Caillin Katnich
Subject: RE: Aug 22 DFO-VFPA Meeting - Actions and Follow Up - VFPA Q&As

Hi all, as follow up to our meeting actions – please see attached the current drafted VFPA Q&A Questions that we intend to use (internally) for our Sept/Oct meetings.

A friendly reminder to please send your final powerpoint deck and any materials you require for printing by EOD Wed Sept 5th to us please, so we can print and be prepared for our Sept 11 meeting.
Next week we will aim to send you all a draft proposed Agenda for Sept 11.

Thanks, and have a great long weekend all!
Charlotte

Charlotte Olson P.Geo., PMP
Manager, Infrastructure Habitat Development
CELL: 604.349.4111

From: Olson, Charlotte
Sent: Wednesday, August 22, 2018 2:32 PM
To: 'Nutton, Byron' <Byron.Nutton@dfo-mpo.gc.ca>; 'Thorpe, Suzanne' <Suzanne.Thorpe@dfo-mpo.gc.ca>; Smith, Shona <Shona.Smith@dfo-mpo.gc.ca>; Ruffo, Gord <Gord.Ruffo@portvancouver.com>; Scoble, Jemma <Jemma.Scoble@portvancouver.com>
Subject: Aug 22 DFO-VFPA Meeting - Actions and Follow Up

Good afternoon all,
Thanks for meeting at VFPA this morning – we appreciate you coming over in person to plan for our fall engagement.

Attached is the current Actions List recorded from our meeting, please don't hesitate to respond if I missed anything or captured something in error.

Also, here is a short summary of our September 11 planning/discussion from today:

- Attendees for DFO: Byron, Suzanne and Shona – Byron and/or Suzanne will be available for the fall sessions, Byron is main point of contact (for any other meetings)
- Attendees for VFPA: Charlotte, Gord, Jemma and [REDACTED]
- Presenters for DFO: Byron
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- Facilitator: Jemma Scoble with administrative support for note taking/record keeping
- Materials: VFPA to prepare hardcopy packages for all attendees, DFO to provide all DFO materials by Sept 5 (so VFPA can print out)
- Logistics: VFPA to coordinate rooms, snacks & lunch, and all A/V support etc.

I have sent a separate invite for our debrief call/meeting on Sept 27/18 at 3pm, so that is booked in our calendars.

Regards,

Charlotte Olson P.Geo., PMP
Manager, Infrastructure Habitat Development



Vancouver Fraser Port Authority
100 The Pointe, 999 Canada Place
Vancouver, B.C. Canada V6C 3T4

P: 604.665.9590 | CELL: 604.349.4111
portvancouver.com

s.19(1)

Thorpe, Suzanne

From: Thorpe, Suzanne
Sent: Wednesday, September 5, 2018 11:54 AM
To: 'Olson, Charlotte'; Scoble, Jemma
Cc: Caillin Katnich; Nutton, Byron; Ruffo, Gord; Smith, Shona
Subject: RE: Aug 22 DFO-VFPA Meeting - Actions and Follow Up - DFO FAQs
Attachments: 2018-09-05_VFPA-DFO_FrequentlyAskedQuestions_VFPA-FINAL.docx

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s.19(1)

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5. Once projects are approved, how are they accounted for in the Habitat Bank?

After a Proponent proposes a habitat bank project, DFO may provide the Proponent with confirmation that the proposed fish habitat creation or enhancement project meets the Offsetting Policy and adheres to the conditions of the a Habitat Banking Arrangement. Preliminary credit values are based on preliminary design proposals and are documented in the detailed records for the bank. Credits are adjusted based on final engineering surveys and field results confirming the total quantity and quality of habitat developed.

At the time when habitat credits are being contemplated for the offsetting of a project's residual serious harm to fish the Proponent is responsible to confirm the 'final' quantity and quality of habitat in the Habitat Bank. It is important to note that the development of a habitat bank does not commit DFO to the authorization or permitting of any future work, undertaking or activity. A detailed accounting of credit deposit and withdrawal transactions is maintained the Proponent. DFO tracks credits in habitat ledgers, and detailed transaction reports are received, verified and retained by DFO for accuracy and long-term accounting purposes.

6. When can a Proponent use Habitat Banking credits for their project(s)?

A Habitat Bank Arrangement does not guarantee the authorization of future serious harm to fish. All projects are reviewed on their own merit and a decision to authorize a project is made independently of the existence of a habitat bank. The value of the fish habitat credits in a habitat bank is measured in terms of the net increase in fish habitat quantity and quality and requires verification prior to withdrawal. Prior to authorizing the work, undertaking or activity for which a regulatory decision is being contemplated, DFO may undertake an independent evaluation of the habitat bank to ensure compliance and confirm the habitat bank is functioning as intended.

7. What types of projects are accepted in a Habitat Bank?

Offsetting measures must support fisheries management objectives or local restoration priorities, be balanced with project impacts, provide tangible benefits to the fishery, and generate self-sustaining benefits over the long term. Offsetting measures are most ideal in areas where habitat conditions are considered poor or degraded, and provide opportunity for the most benefit to fish.

Habitat banking projects range significantly in size and scope. Projects to stabilize river banks or increase shoreline complexity, remove anthropogenic barriers to fish passage, enhance or construct wetland or marsh habitat, and restore or create stream channels are examples of habitat banking projects that DFO may determine are acceptable.

8. Is DFO confident regarding the use of Habitat Banking as a means of Offsetting?

Habitat banks have been used in Canada several years and are commonly used internationally as a best practice for implementing offset projects as conditions of regulatory approvals. Proponent-led habitat banking is currently supported by DFO policy guidance and is currently being contemplated for use more formally under the proposed revised *Fisheries Act*, with the development of new Regulations. The benefits of habitat banks are well documented in primary literature. A study titled "Fish Habitat Banking in Canada: Opportunities and Challenges" (2011) <http://www.dfo-mpo.gc.ca/Library/347440.pdf> includes an evaluation of habitat banking, outlines the advantages and challenges, and makes recommendations to assist in the formation of habitat banking programs that maximize the known advantages and minimize the issues and challenges that have been encountered with existing habitat banking programs.

Thorpe, Suzanne

From: Olson, Charlotte <Charlotte.Olson@portvancouver.com>
Sent: Thursday, September 6, 2018 11:32 AM
To: Thorpe, Suzanne; Nutton, Byron; Smith, Shona
Cc: Caillin Katnich; Ruffo, Gord; Scoble, Jemma; Lien, Meaghan; Woods, Natalie
Subject: RE: Sept 11 - Draft Agenda for DFO
Attachments: 2018-09-11-HEP-AG-VFPA-HEP-DFO-Information Session w Aboriginal Groups-D.....docx

All – please find attached the suggested Draft Agenda for the Sept 11 meeting at VFPA.
The Agenda is in line with the information package sent to groups.

Should you have any comments please “reply-all” and send back to VFPA by noon on Monday Sept 10, so this can be printed.

Thank you

Charlotte Olson P.Geo., PMP
Manager, Infrastructure Habitat Development

CELL: 604.349.4111



Meeting Agenda

VFPA HEP & DFO Information Session with Aboriginal Groups

Date: Tuesday, September 11, 2018
Time: 9:00 a.m. to 1:30 p.m.
Location: Pacific A & B Rooms, Vancouver Fraser Port Authority, 100 The Pointe 999
Canada Place, Vancouver

Agenda

- | <u>#</u> | <u>Item</u> |
|----------|---|
| 1. | Introductions |
| 2. | VFPA Presentation <ul style="list-style-type: none">• Objectives of Information Session• Overview of VFPA's Habitat Enhancement Program• Overview of Aboriginal Consultation and Engagement on Habitat Projects Delivered for Inclusion in VFPA's Habitat Bank• Project example: New Brighton Park Shoreline Habitat Restoration Project |
| 3. | DFO Presentation <ul style="list-style-type: none">• Requirements for Fisheries Act Authorizations• Proponent-led habitat banking• Habitat banking arrangements |
| 4. | Questions and General Discussion |

Documents Provided

1. VFPA Presentation – Information Session on VFPA's Aboriginal Consultation Process for Habitat Banking Projects (VFPA HEP presentation)
2. Overview of Proponent-led Habitat Banking (DFO presentation)
3. Frequently Asked Questions on Proponent-led Habitat Banking (DFO provided)

Thorpe, Suzanne

From: Olson, Charlotte <Charlotte.Olson@portvancouver.com>
Sent: Thursday, September 6, 2018 8:19 AM
To: Thorpe, Suzanne
Cc: Nutton, Byron; Scoble, Jemma; Ruffo, Gord
Subject: Re: Aug 22 DFO-VFPA Meeting - Actions and Follow Up - DFO FAQs
Attachments: image001.png

Thanks Suzanne
Regards, Charlotte

On Sep 6, 2018, at 8:09 AM, Thorpe, Suzanne <Suzanne.Thorpe@dfo-mpo.gc.ca>> wrote:

Hi Charlotte;

I don't think we need to provide the Interim Guidance document to participants – it would probably just confuse things. W/r/t the template – it's more to let people know that it is a standardized process that all partners in the Habitat Banking program are meant to follow (obviously with negotiated minor differences depending on the partnership) – we can speak to that if necessary. DFO uses lots of “templates” (i.e., for project reviews, correspondence to other agencies, agreements, etc.).

If really interested parties request copy of the Guidance, we can provide it after the session.

Thanks for asking. See you soon.

Suzanne
O: 604.666.3512
C: 604.312.7964

From: Olson, Charlotte [mailto:Charlotte.Olson@portvancouver.com]
Sent: 2018–September-05 3:55 PM
To: Thorpe, Suzanne; Scoble, Jemma
Cc: Caillin Katnich; Nutton, Byron; Ruffo, Gord; Smith, Shona
Subject: RE: Aug 22 DFO-VFPA Meeting - Actions and Follow Up - DFO FAQs

Hi Suzanne

One question – is DFO planning to bring hardcopies of your “Interim Guide to Proponent-led Habitat Banking” document that you make reference to in your presentation? You reference a ‘template’

This may get asked of you, please advise your preference – we will leave it to you to bring copies if you wish

Thank you

Charlotte Olson P.Geo., PMP
Manager, Infrastructure Habitat Development

CELL: 604.349.4111

From: Thorpe, Suzanne [mailto:Suzanne.Thorpe@dfo-mpo.gc.ca]
Sent: Wednesday, September 05, 2018 11:54 AM
To: Olson, Charlotte <Charlotte.Olson@portvancouver.com<mailto:Charlotte.Olson@portvancouver.com>>; Scoble, Jemma <Jemma.Scoble@portvancouver.com<mailto:Jemma.Scoble@portvancouver.com>>
Cc: Caillin Katnich <Caillin.Katnich@portvancouver.com<mailto:Caillin.Katnich@portvancouver.com>>; Nutton, Byron <Byron.Nutton@dfo-mpo.gc.ca<mailto:Byron.Nutton@dfo-mpo.gc.ca>>; Ruffo, Gord <Gord.Ruffo@portvancouver.com<mailto:Gord.Ruffo@portvancouver.com>>; Smith, Shona <Shona.Smith@dfo-mpo.gc.ca<mailto:Shona.Smith@dfo-mpo.gc.ca>>
Subject: RE: Aug 22 DFO-VFPA Meeting - Actions and Follow Up - DFO FAQs

Hi Charlotte and Jemma;

Attached are DFOs FAQs that are intended for external distribution at the VFPA Consultation meetings. The DFO deck submitted to you in August will remain as FINAL.

Let me know if you have any concerns, or require anything from us in advance of September 11th.

Best regards,

Suzanne Thorpe

Partnerships, Standards and Guidelines/ Partenariats, normes et lignes directrices Fisheries Protection Program/
Programme de protection des pêches Ecosystem Management Branch / Direction de la gestion des écosystèmes
Fisheries and Oceans Canada (DFO), Pacific Region/ Pêches et Océans Canada, Région du Pacifique Government of
Canada/ Gouvernement du Canada
200-401 Burrard Street, Vancouver BC V6C 3S4 (13th Floor)/ 401 Burrard Street, bureau 200, Vancouver (C.-B.) V6C 3S4
Telephone: (604) 666.3512

From: Olson, Charlotte [mailto:Charlotte.Olson@portvancouver.com]
Sent: 2018–August-31 2:25 PM
To: Nutton, Byron; Thorpe, Suzanne; Smith, Shona; Ruffo, Gord; Scoble, Jemma
Cc: Caillin Katnich
Subject: RE: Aug 22 DFO-VFPA Meeting - Actions and Follow Up - VFPA Q&As

Hi all, as follow up to our meeting actions – please see attached the current drafted VFPA Q&A Questions that we intend to use (internally) for our Sept/Oct meetings.

A friendly reminder to please send your final powerpoint deck and any materials you require for printing by EOD Wed Sept 5th to us please, so we can print and be prepared for our Sept 11 meeting.
Next week we will aim to send you all a draft proposed Agenda for Sept 11.

Thanks,
Charlotte

Charlotte Olson P.Geo., PMP
Manager, Infrastructure Habitat Development

CELL: 604.349.4111

From: Olson, Charlotte
Sent: Wednesday, August 22, 2018 2:32 PM

s.19(1)


To: 'Nutton, Byron' <Byron.Nutton@dfo-mpo.gc.ca<mailto:Byron.Nutton@dfo-mpo.gc.ca>>; 'Thorpe, Suzanne' <Suzanne.Thorpe@dfo-mpo.gc.ca<mailto:Suzanne.Thorpe@dfo-mpo.gc.ca>>; Smith, Shona <Shona.Smith@dfo-mpo.gc.ca<mailto:Shona.Smith@dfo-mpo.gc.ca>>; Ruffo, Gord <Gord.Ruffo@portvancouver.com<mailto:Gord.Ruffo@portvancouver.com>>; Scoble, Jemma <Jemma.Scoble@portvancouver.com<mailto:Jemma.Scoble@portvancouver.com>>
Subject: Aug 22 DFO-VFPA Meeting - Actions and Follow Up

Good afternoon all,

Thanks for meeting at VFPA this morning – we appreciate you coming over in person to plan for our fall engagement.

Attached is the current Actions List recorded from our meeting, please don't hesitate to respond if I missed anything or captured something in error.

Also, here is a short summary of our September 11 planning/discussion from today:

- Attendees for DFO: Byron, Suzanne and Shona – Byron and/or Suzanne will be available for the fall sessions, Byron is main point of contact (for any other meetings)
- Attendees for VFPA: Charlotte, Gord, Jemma and 
- Presenters for DFO: Byron
- Presenters for VFPA: Charlotte & Gord
- Facilitator: Jemma Scoble with administrative support for note taking/record keeping
- Materials: VFPA to prepare hardcopy packages for all attendees, DFO to provide all DFO materials by Sept 5 (so VFPA can print out)
- Logistics: VFPA to coordinate rooms, snacks & lunch, and all A/V support etc.

I have sent a separate invite for our debrief call/meeting on Sept 27/18 at 3pm, so that is booked in our calendars.

Regards,

Charlotte Olson P.Geo., PMP
Manager, Infrastructure Habitat Development

s.19(1)

<image001.png>

Vancouver Fraser Port Authority
100 The Pointe, 999 Canada Place
Vancouver, B.C. Canada V6C 3T4

P: 604.665.9590 | CELL: 604.349.4111

portvancouver.com<<https://na01.safelinks.protection.outlook.com/?url=http%3A%2F%2Fwww.portvancouver.com%2F&data=01%7C01%7CCharlotte.Olson%40portvancouver.com%7C984be737777f4f83cd1508d613610381%7C1297c82c23524c6cb0d09add5a067668%7C0&sdata=ISW5d7e2Ezha7ZURHTzM9JEG8IJ8dWcwRMa9MnGbyyo%3D&reserved=0>>

Smith, Shona

Subject: FW: HOLD for Aboriginal Consultation on DFO-VFPA Arrangement for Habitat Banking
Location: VFPA office – Pacific A Room (8) – 100 The Pointe, 999 Canada Place; VFPA office – Pacific B Room (14) – 100 The Pointe, 999 Canada Place
Start: Tue 9/11/2018 9:00 AM
End: Tue 9/11/2018 1:30 PM
Recurrence: (none)
Meeting Status: Accepted
Organizer: Ruffo, Gord

-----Original Appointment-----

From: Ruffo, Gord [mailto:Gord.Ruffo@portvancouver.com]
Sent: 2018–August-08 1:12 PM
To: Ruffo, Gord; Scoble, Jemma; Olson, Charlotte; Thorpe, Suzanne; Nutton, Byron
Subject: HOLD for Aboriginal Consultation on DFO-VFPA Arrangement for Habitat Banking
When: 2018–September-11 9:00 AM-1:30 PM (UTC-08:00) Pacific Time (US & Canada).
Where: VFPA office – Pacific A Room (8) – 100 The Pointe, 999 Canada Place; VFPA office – Pacific B Room (14) – 100 The Pointe, 999 Canada Place

The time of this consultation event will be confirmed later in August



VANCOUVER FRASER PORT AUTHORITY
MEETING NOTES

VFPA-HEP & DFO Consultation with Aboriginal Groups on:









- VFPA-HEP's Consultation Process for Habitat Banking Projects (VFPA)
- Overview of Proponent-led Habitat Banking (DFO)

Date: Tuesday, September 11, 2018

Time: 9:00 a.m. to 1:30 p.m.

Location: Pacific A & B Rooms, Vancouver Fraser Port Authority, 100 The Pointe 999
Canada Place, Vancouver

Participants:

	<i>Semiahmoo First Nation</i>	Jemma Scoble, VFPA
	<i>Semiahmoo First Nation</i>	Charlotte Olson, VFPA
	<i>, Musqueam First Nation</i>	Gord Ruffo, VFPA
	<i>Musqueam First Nation</i>	 Hemmera
	<i>, Tsawwassen First Nation</i>	
	<i>Kwikwetlem First Nation</i>	Byron Nutton, DFO
	<i>Kwikwetlem First Nation</i>	Suzanne Thorpe, DFO
		Shona Smith, DFO

Agenda:

- | # | Item |
|----------|---|
| 1. | Introductions |
| 2. | VFPA Presentation <ul style="list-style-type: none"> • Objectives of Information Session • Overview of VFPA's Habitat Enhancement Program • Overview of Aboriginal Consultation and Engagement on Habitat Banking Projects • Project example: New Brighton Park Shoreline Habitat Restoration Project |
| 3. | DFO Presentation <ul style="list-style-type: none"> • Requirements for Fisheries Act Authorizations • Proponent-led habitat banking • Habitat banking arrangements |
| 4. | Questions and General Discussion |

s.19(1)

Documents Provided:

1. VFPA Presentation – Information Session on VFPA's Aboriginal Consultation Process for Habitat Banking Projects (VFPA HEP presentation)
2. Overview of Proponent-led Habitat Banking (DFO presentation)
3. Frequently Asked Questions on Proponent-led Habitat Banking (DFO provided)

VANCOUVER FRASER PORT AUTHORITY | MEETING NOTES

Summary of Discussion:

VFPA provided context that the purpose of the meeting is to share and discuss, with Aboriginal groups, information related to the consultation processes used for the delivery of VFPA's habitat projects proposed for VFPA's habitat bank and to provide opportunity for Aboriginal group's input into this process. As well, DFO will provide information on their policies related to habitat banking and explain the habitat banking program.

<VFPA presentation>

During the VFPA presentation, there was discussion on an example project undertaken with support from First Nations. The Glenrose Tidal Marsh Project was a habitat project that was brought to VFPA from several Nations where ancestral sites were being exposed by erosion and artefacts were being lost/ looted. The opportunity to protect these ancestral sites was of great significance to those Nations. VFPA at looked at providing protections for the ancestral sites – as well as for fish - and prioritized this project because of its significance to the communities.

VFPA indicates that as part of the current engagement effort they are seeking advice on what projects should be considered and how First Nation communities want to work together. The identification of habitat project sites that are significant for the nations HEP is working with is important. As well, in the project development phase the involvement of nations in planting and construction opportunities are considered, and VFPA has made such opportunities a priority.

VFPA discussed other projects that VFPA-HEP has undertaken. With Musqueam First Nation a project was initially focused on enhancing the foreshore area with a tidal marsh but feedback from the nation brought the focus to the need for a new boat ramp, which was rebuilt on the foreshore. Musqueam advised that for this initiative the creation of a tidal marsh was not the main priority, but the boat ramp project was.

A question was asked about whether VFPA had to avoid the City of Vancouver's utilities (e.g., storm drain) in the area where the new wetland was created at New Brighton Park (NBP). VFPA confirmed that the west edge of the wetland had to be located to the east to accommodate the City of Vancouver's storm drain.

A request was made for information on the monitoring results and fish use of the NBP wetland area. VFPA responded that HEP has completed its 2018 annual post construction monitoring a few weeks ago and can share it when the reporting is completed, if there is interest. From a biological perspective, the results are very positive. The salt marsh is establishing well, recognizing it has only been one year and that it takes some time for the sites to establish and function. A Go-pro camera used to obtain underwater video footage at the marsh confirmed that juvenile salmon are now using the tidal channel. As well, some kelp has established in the new habitat.

First Nations asked if there was aboriginal consultation completed by VFPA for NBP. VFPA responded that there was consultation with Musqueam, Squamish and Tsleil-Waututh First Nations. Consultation was conducted to determine the best way to work with the Nations as well as on the technical and design options for the foreshore. Specifically, VFPA advised that Musqueam, Squamish and Tsleil-Waututh First Nations worked with VFPA's technical team on items such as hydraulic flushing, number of channel openings, etc. During the technical discussions the planting plan was reviewed to ensure that the plant selections were supported by the Nations involved.

VANCOUVER FRASER PORT AUTHORITY | MEETING NOTES

A question was asked about whether or not the planting plan included any considerations for climate change. VFPA confirmed that climate change was considered and that monitoring is being done to determine the establishment of all species. The plants installed are comprised of native coastal species. Plant selection was based on appropriate native coastal species that are able to survive at different water elevations. This is meant to provide for the long-term survivorship of vegetation in the marsh area. The dune plants, for instance, are hearty and will thrive unless placed underwater. Generally, the plants are becoming well established, specifically pickleweed and arrowgrass.

Questions were asked about monitoring and how long monitoring is performed for. VFPA advised that monitoring is being undertaken on an annual basis up until it is withdrawn from the bank or until any further requirements for monitoring by the agencies are concluded.

There was discussion regarding the Vancouver Park Board oversight at NBP. The Park Board has a role for maintaining the adjacent park area but the area of the wetland habitat is under VFPA jurisdiction, and is therefore maintained by VFPA-HEP. A concern was raised regarding the potential for site impacts due to Park Board activities (e.g., release of chlorinated water or other). VFPA advised that they work closely with the Park Board under a formal agreement which should, along with federal and provincial legislation and regulations, prevent impacts to the wetlands.

First Nations advised that there is value in the planting of traditional foods for Katzie FN and for many other bands; these represent some of the valued trade goods. As well, there are educational opportunities in such areas that could be taken advantage of.

<Break>

<DFO presentation>

A question asked regarding what chemical/ biological manipulation is in the context of offsetting. DFO responded that this could be something like herbicide treatment of invasive species or lake fertilization to promote primary and secondary production of fish that would in turn improve the survival of juvenile fish.

Additional note: To date, DFO has not considered chemical or biological manipulation for any habitat banking project. Its relevance in the context of habitat banking is limited and may not be appropriate for habitat banking credit allocation.

There was discussion regarding habitat banking. DFO provided information on habitat banking including that:

- There are examples of habitat banking from the early nineties so habitat banking precedence is well established.
- Habitat banks are used Canada-wide and they have been used in BC as a practice for many years for offsetting environmental impacts
- Site surveys and monitoring is completed to ensure performance is met; at the time of withdrawal the site is reviewed in consideration of its applicability to an Authorization and relevant offsetting requirements
- With regard to the use of ratios used to calculate the scale of offset for certain components of the authorized work, undertaking or activity, the use of ratios depends on what the habitat values are and the type of project impacts for determining ratios. Under authorization where there is no habitat bank available, reasons to use ratios includes the uncertainty with offsetting as well as the time lag

VANCOUVER FRASER PORT AUTHORITY | MEETING NOTES

it takes for offsetting projects to become productive. Conventional offsetting creates an impact today and the offset becomes functional at a later date. There are different reasons to use ratios with size of impact versus the size of the offset. Sometimes, when there is uncertainty that offsetting will work, a proponent may build more of it with the intent that most will work; this is then monitored over a period of time.

- There is not a standard "across the board" ratio used. Ratios are determined on a project-by-project basis and it is by habitat type that is being impacted, as well as habitat type being proposed for offsetting. For example it's easy to understand the currency exchange between eelgrass to eelgrass but it is more difficult to understand the exchange between mudflat to eelgrass.
- A ledger documenting habitat types is useful in making decisions with offsetting measures but there is no magical formula. There is a lot of biology, a lot of formulas and site specifics in each case, related to productivity values.
- There is no across the board type ratio. Offsetting is based on a certain amount of professional judgement by each assessor, DFOs management and the information provided by the Proponent.

A comment was made regarding the Roberts Bank area, where there was log/wood debris removal, trying to offset the loss of the aquatic component. DFO added that based on what you're trying to achieve and the site specifics, you might have to adapt plans (through pre-project planning and assessment) and see what the right offset is for the right impact, takes a lot of the guess work out of it.

DFO advised that with the 2012 changes to the *Fisheries Act*, one of the policies that was formalized was the offsetting policy, and later an interim policy for habitat banking was brought forward. One of the recent proposed changes to the *Fisheries Act* it that it may now include habitat banking within the Act itself. DFO may do more of this type of work with upcoming changes to the *Fisheries Act*. It's hard to know in terms of legislation but we are fairly sure that there will be more formalized work in support of habitat banking.

A request was made for DFO to provide examples of where habitat banking was not considered sufficient by either the regulator or Aboriginal group. A follow up question was asked on what occurs when there is a disagreement in sufficiency. DFO advised that it has happened (no specific file details available) but that generally if a proposal comes up and it's not enough to provide fulsome offsetting and/ or is not adequate for the offset, more of a withdrawal may be needed from the habitat bank.

VFPA was asked if they are planning to use any of their habitat credits. VFPA responded that they currently do not have any withdrawals proposed from the habitat bank but, they may propose to do so in the future.

A statement was made regarding appreciation for habitat enhancement and that with fish and fish habitat losses, there may be a real need for this type of approach to secure areas for the future.

Clarity and confirmation was sought regarding a concern with habitat banking - that there is no guarantee that future projects will be approved, that certain types of impacts will be considered on their own and not necessarily be approved just because there is a habitat bank to offset them. DFO confirms this and advises that proponents of infrastructure projects must be able to demonstrate the projects impacts are unavoidable, and how these impacts will be offset. Consideration may be given to the use of credits as offsetting but it

VANCOUVER FRASER PORT AUTHORITY | MEETING NOTES

does not affect the decision. The existence of a habitat bank is not a deciding factor on whether or not to issue an Authorization. As well, before DFO makes any regulatory decision, DFO is required to consult with First Nations.

There was ensuing discussion regarding DFO's decision making processes and whether DFO's program is well-resourced and/or whether changes to the *Fisheries Act* are likely to affect resources. DFO does not have specific information pertaining to resourcing per se, but expects that the resources dedicated to habitat banking are unlikely to change.

The goals of the information session were reconfirmed as:

- DFO: Information sharing on the existing habitat banking agreement and proposed new arrangement with VFPA as it is expiring shortly. The goal was to provide information on what habitat banking is and the associated policies that provide for its use.
- VFPA: HEP has been working with many communities in the delivery of its projects. The goal was to provide opportunity to share the process VFPA has been using and request input as to whether there are any concerns with the process or ideas to improve processes.
- VFPA is interested in identifying ideas and projects from First Nation communities. VFPA feels that it is an opportunity get feedback in order to improve or enhance projects and it intended to be an ongoing communication.

A commitment was made by VFPA and DFO to share a summary record of the discussions and to provide these to the attendees for review and feedback.

<End of Session>

VFPA HEP & DFO Information Session with Aboriginal Groups

Date: Tuesday, September 11, 2018
Time: 9:00 a.m. to 1:30 p.m.
Location: Pacific A & B Rooms, Vancouver Fraser Port Authority, 100 The Pointe 999
Canada Place, Vancouver

Agenda

- | # | <u>Item</u> |
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| 2. | VFPA Presentation <ul style="list-style-type: none">• Objectives of Information Session• Overview of VFPA's Habitat Enhancement Program• Overview of Aboriginal Consultation and Engagement on Habitat Projects Delivered for Inclusion in VFPA's Habitat Bank• Project example: New Brighton Park Shoreline Habitat Restoration Project |
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2. Overview of Proponent-led Habitat Banking (DFO presentation)
3. Frequently Asked Questions on Proponent-led Habitat Banking (DFO provided)

Thorpe, Suzanne

From: Olson, Charlotte <Charlotte.Olson@portvancouver.com>
Sent: Tuesday, September 11, 2018 1:43 PM
To: Scoble, Jemma
Cc: Smith, Shona; Ruffo, Gord; Nutton, Byron; Thorpe, Suzanne
Subject: RE: Dates for meeting with Sto:lo groups (People of the River) etc.

Hi Jemma,

As discussed today – DFO and VFPA are available the following additional dates, as required: **October 3, 9, 10 & 16**

Thank you all again for today!

Charlotte

From: Thorpe, Suzanne [mailto:Suzanne.Thorpe@dfo-mpo.gc.ca]
Sent: Thursday, September 06, 2018 8:46 PM
To: Olson, Charlotte <Charlotte.Olson@portvancouver.com>
Cc: Smith, Shona <Shona.Smith@dfo-mpo.gc.ca>; Scoble, Jemma <Jemma.Scoble@portvancouver.com>; Ruffo, Gord <Gord.Ruffo@portvancouver.com>; Nutton, Byron <Byron.Nutton@dfo-mpo.gc.ca>
Subject: RE: Dates for meeting with Sto:lo groups (People of the River) etc.

Hi Charlotte – we will discuss and advise you early next week of best dates. ~ Suzanne

From: Olson, Charlotte [mailto:Charlotte.Olson@portvancouver.com]
Sent: 2018-September-06 12:05 PM
To: Thorpe, Suzanne; Nutton, Byron
Cc: Smith, Shona; Scoble, Jemma; Ruffo, Gord
Subject: FW: Dates for meeting with Sto:lo groups (People of the River) etc.
Importance: High

Hi Suzanne and Byron

Per below – we would like to provide Jemma with a few dates between Oct 3 and Oct 18 that DFO is available to attend in the Lower Mainland:

1. Make up meeting at VFPA (anticipated) for those groups that may not be able to attend Sept 11
2. Specific request from People of the River for a meeting in Chilliwack

Please confirm a few dates that you are available – then Jemma will work to schedule the above 2 meetings (TBC).

As of right now we anticipate 8-10 attendees for next week's Sept 11 meeting, the numbers are still being confirmed.

Thank you

Charlotte Olson P.Geo., PMP
Manager, Infrastructure Habitat Development

CELL: 604.349.4111

From: Scoble, Jemma
Sent: Wednesday, September 05, 2018 6:42 PM
To: Olson, Charlotte <Charlotte.Olson@portvancouver.com>; Ruffo, Gord <Gord.Ruffo@portvancouver.com>

Subject: Dates for meeting with Sto:lo groups (People of the River)

Importance: High

Hi,
Please confirm with DFO their availability for a meeting in Vancouver (groups unavailable for Sept 11) and one in Chilliwack (People of the River) between Oct 3 – Oct 18.

Thanks

Jemma

Jemma Scoble

Aboriginal Consultation Support



Vancouver Fraser Port Authority

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Vancouver, B.C. Canada V6C 3T4

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portvancouver.com

This message is directed in confidence solely to the person(s) named above and may contain confidential or private information which is not to be disclosed. If you are not the addressee or an authorized representative thereof, please contact the message sender and then destroy the message in its entirety. Thank you.

No information has been removed or severed from this page

Thorpe, Suzanne

From: Olson, Charlotte <Charlotte.Olson@portvancouver.com>
Sent: Thursday, September 27, 2018 4:41 PM
To: Thorpe, Suzanne
Cc: Nutton, Byron; Ruffo, Gord; Scoble, Jemma
Subject: RE: VFPA-DFO meetings in October and Al Rose site visits

Hi Suzanne, as discussed this morning, I've been out of the office this past week – I will get back to you by EOD on Monday Oct 1, with some ideas for Al Rose when he comes out to Vancouver – I am sure we can make something work on the 9th or 11th as we would really like to speak with him at VFPA, and possibly show him one of our sites in the field. It is a very busy few weeks for us though, we may only have an opportunity to see one site (New Brighton). I'll get back to you on that as discussed.

Please also note Jemma has been working hard to coordinate our October consultation meetings with Aboriginal groups, and at their request we've had a few changes that you have seen (and accepted, thank you).

So in summary, right now we have:

1. Tues Oct 10 – meeting in Chilliwack with Fraser Valley/Slo:lo groups (exact location in Chilliwack TBC); ~0900am anticipated start
2. Tues Oct 16 – Vancouver Island groups meeting (at Brentwood Bay); ~0900 anticipated start

Next week we can also speak to carpooling out to Chilliwack if you both wish, the morning of October 10th

Cheers,

Charlotte Olson P.Geo., PMP
Manager, Infrastructure Habitat Development

CELL: 604.349.4111

From: Thorpe, Suzanne [mailto:Suzanne.Thorpe@dfo-mpo.gc.ca]
Sent: Thursday, September 27, 2018 2:12 PM
To: Olson, Charlotte <Charlotte.Olson@portvancouver.com>
Cc: Nutton, Byron <Byron.Nutton@dfo-mpo.gc.ca>
Subject: VFPA-DFO meeting & site visit date?

Hi Charlotte;

I left you a v/m as well yesterday and thought I would follow with a quick email. Al Rose from our Ecosystem Programs Policy shop (NHQ) has confirmed his travel plans for week of Oct 9th and would like to meet with VFPA to review the habitat banking, identify successes and challenges, and visit some of the VFPA conservation projects. He is also going to attend the Oct 10th consultation meeting in Chilliwack with myself & Byron. Oct 9th or 11th works for me re: site visits.

When you have time, let's discuss.

Suzanne Thorpe

Partnerships, Standards and Guidelines/ Partenariats, normes et lignes directrices
Fisheries Protection Program/ Programme de protection des pêches
Ecosystem Management Branch / Direction de la gestion des écosystèmes

Fisheries and Oceans Canada (DFO), Pacific Region/ Pêches et Océans Canada, Région du Pacifique

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200-401 Burrard Street, Vancouver BC V6C 3S4 (13th Floor)/ 401 Burrard Street, bureau 200, Vancouver (C.-B.) V6C 3S4

Telephone: (604) 666.3512

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Smith, Shona

From: Smith, Shona
Sent: Tuesday, October 2, 2018 3:14 PM
To: Cooper, Tola
Subject: RE: VFPA Habitat Banking Engagement

Sounds good. Thanks!

Shona Smith

Client Liaison and Partnerships Coordinator, DFO
Tel: 250-756-7256

From: Cooper, Tola
Sent: 2018-October-02 3:12 PM
To: Smith, Shona
Subject: RE: VFPA Habitat Banking Engagement

Let's discuss tomorrow at our bilat if that works (for OT and schedule maintenance) – might be worth discussing the coding with Byron [REDACTED] But his may be similar.

From: Smith, Shona
Sent: October-02-18 3:04 PM
To: Cooper, Tola
Subject: VFPA Habitat Banking Engagement

Hey Tola,

Byron, Suzanne, and I will be attending an engagement session in Chilliwack on October 10. Byron and I plan to drive over on the 9th and come back late on the 10th. Just wondering if I should charge our budget or his? Also, I am guessing there will be some OT. Can we discuss? I will send the travel request to you, so wanted to let you know what is happening. This is in the FAR calendar.

Thanks,

Shona Smith

Client Liaison and Partnerships Coordinator
Fisheries Protection Program | Programme de protection des pêches
Fisheries and Oceans Canada | Pêches et Océans Canada
Government of Canada | Gouvernement du Canada
3190 Hammond Bay Road, Nanaimo BC V9T 6N7
shona.smith@dfo-mpo.gc.ca | Tel: 250-756-7256

Projects Near Water website:
<http://www.dfo-mpo.gc.ca/pnw-ppe/index-eng.html>

s.21(1)(b)

Smith, Shona

From: Smith, Shona
Sent: Tuesday, October 2, 2018 3:06 PM
To: Olson, Charlotte; Scoble, Jemma
Cc: Lien, Meaghan
Subject: RE: VFPA Habitat Banking Engagement Session

Ok, thanks for the update!

Shona Smith

Client Liaison and Partnerships Coordinator, DFO
Tel: 250-756-7256

From: Olson, Charlotte [mailto:Charlotte.Olson@portvancouver.com]
Sent: 2018-October-02 3:01 PM
To: Smith, Shona; Scoble, Jemma
Cc: Lien, Meaghan
Subject: RE: VFPA Habitat Banking Engagement Session

Hi Shona, it is my understanding that Jemma is still confirming what the Chilliwack meeting location is.

We will aim to update the location by the end of this week, thank you for your understanding!

Charlotte Olson P.Geo., PMP
Manager, Infrastructure Habitat Development
CELL: 604.349.4111

From: Smith, Shona [mailto:Shona.Smith@dfo-mpo.gc.ca]
Sent: Tuesday, October 02, 2018 3:00 PM
To: Olson, Charlotte <Charlotte.Olson@portvancouver.com>; Scoble, Jemma <Jemma.Scoble@portvancouver.com>
Subject: VFPA Habitat Banking Engagement Session

Hi Ladies,

Just wondering where the meeting is taking place on the 10th in Chilliwack?

Shona Smith

Client Liaison and Partnerships Coordinator
Fisheries Protection Program | Programme de protection des pêches
Fisheries and Oceans Canada | Pêches et Océans Canada
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3190 Hammond Bay Road, Nanaimo BC V9T 6N7
shona.smith@dfo-mpo.gc.ca | Tel: 250-756-7256

Projects Near Water website:
<http://www.dfo-mpo.gc.ca/pnw-ppe/index-eng.html>

Smith, Shona

From: Smith, Shona
Sent: Tuesday, October 2, 2018 2:27 PM
To: Nutton, Byron
Subject: Chilliwack Plans - VFPA Habitat Banking

Hey Byron,

Just thinking about next week and travel plans if I am going to attend. What are your plans?

Shona Smith

Client Liaison and Partnerships Coordinator
Fisheries Protection Program | Programme de protection des pêches
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No information has been removed or severed from this page

Thorpe, Suzanne

From: Thorpe, Suzanne
Sent: Tuesday, October 2, 2018 9:45 AM
To: Olson, Charlotte
Subject: Meetings w DFO: October 9-11th (?)

Hi Charlotte;

I am still planning to take Al Rose to see the VFPA habitat banking site at New Brighton on the afternoon of Oct 9th.

I am also thinking that we can probably accommodate VFPA-DFO discussions on Habitat Banking on the Wednesday after the meeting in Chilliwack. An alternative is to schedule something for Thursday (meeting/ site visits) - any thoughts on getting out for site visits to some of the sites other than New Brighton? Built marsh habitats?

If you don't have time Thursday – don't sweat it as I have to also write a 24hr exam for work and so it would allow me to complete it Thurs-Fri instead of Fri-Sat.

LMK soon as I have to return response to the exam board.

Suzanne Thorpe

Partnerships, Standards and Guidelines/ Partenariats, normes et lignes directrices
Fisheries Protection Program/ Programme de protection des pêches
Ecosystem Management Branch / Direction de la gestion des écosystèmes
Fisheries and Oceans Canada (DFO), Pacific Region/ Pêches et Océans Canada, Région du Pacifique
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200-401 Burrard Street, Vancouver BC V6C 3S4 (13th Floor)/ 401 Burrard Street, bureau 200, Vancouver (C.-B.) V6C 3S4
Telephone: (604) 666.3512

Smith, Shona

From: Olson, Charlotte <Charlotte.Olson@portvancouver.com>
Sent: Friday, October 5, 2018 12:25 PM
To: Scoble, Jemma; Ruffo, Gord; Nutton, Byron; Thorpe, Suzanne; Rose, Alwyn; Smith, Shona
Subject: RE: Oct 10 Meeting in Chilliwack cancelled

Thanks Jemma – all DFO folks, we will get back to you with the new date in November that is proposed by the Fraser Valley groups; we appreciate your flexibility.
The October 10th meeting cancellation has been sent to you.

As of right now, our meeting at VFPA with you on October 11th is still on (agenda sent to you earlier today), as is the meeting on Vancouver Island set for October 16th

 thanks

Charlotte Olson P.Geo., PMP
Manager, Infrastructure Habitat Development

CELL: 604.349.4111

-----Original Appointment-----

From: Scoble, Jemma
Sent: Friday, October 05, 2018 12:15 PM
To: Olson, Charlotte; Ruffo, Gord; 'Byron.Nutton@dfo-mpo.gc.ca'; 'Suzanne.Thorpe@dfo-mpo.gc.ca'
Cc: Rose, Alwyn; Smith, Shona
Subject: Canceled: HOLD for Aboriginal Consultation on DFO-VFPA Arrangement for Habitat Banking
When: Wednesday, October 10, 2018 9:00 AM-1:30 PM (UTC-08:00) Pacific Time (US & Canada).
Where: Chilliwack
Importance: High

I have just received confirmation that this meeting is being rescheduled to November.

s.19(1)

Thorpe, Suzanne

From: Nutton, Byron
Sent: Wednesday, October 10, 2018 8:56 AM
To: Olson, Charlotte; Thorpe, Suzanne; Rose, Alwyn
Cc: [REDACTED]; Ruffo, Gord; Caillin Katnich
Subject: RE: Proposed Agenda for Oct 11 meeting + site visit with Al Rose at VFPA - for DFO input

Yes, I'll see you in the AM.

From: Olson, Charlotte [mailto:Charlotte.Olson@portvancouver.com]
Sent: 2018–October-10 8:55 AM
To: Thorpe, Suzanne <Suzanne.Thorpe@dfo-mpo.gc.ca>; Nutton, Byron <Byron.Nutton@dfo-mpo.gc.ca>; Rose, Alwyn <Alwyn.Rose@dfo-mpo.gc.ca>
Cc: [REDACTED] Ruffo, Gord <Gord.Ruffo@portvancouver.com>; Caillin Katnich <Caillin.Katnich@portvancouver.com>
Subject: RE: Proposed Agenda for Oct 11 meeting + site visit with Al Rose at VFPA - for DFO input

Hi Suzanne/Byron and all, we have not heard back on below suggested Agenda but we assume we will see you all here at VFPA for 10am start tomorrow (Oct 11).

Please call or email if you have any changes, thank you and looking forward to the discussion!

Charlotte

Charlotte Olson P.Geo., PMP
Manager, Infrastructure Habitat Development

CELL: 604.349.4111

From: Olson, Charlotte
Sent: Friday, October 05, 2018 10:39 AM
To: 'Thorpe, Suzanne' <Suzanne.Thorpe@dfo-mpo.gc.ca>; 'Nutton, Byron' <Byron.Nutton@dfo-mpo.gc.ca>; Rose, Alwyn <Alwyn.Rose@dfo-mpo.gc.ca>
Cc: [REDACTED] Ruffo, Gord <Gord.Ruffo@portvancouver.com>
Subject: Proposed Agenda for Oct 11 meeting + site visit with Al Rose at VFPA - for DFO input

Hi Suzanne, Byron and Al,

Below is our proposed agenda for our meeting with Al Rose and yourself on October 11. Suzanne, as you had indicated that Al would like to see some of our habitat projects, we are proposing to use a video that we have prepared to provide him with a "virtual tour" of all of our sites. This video will provide relevant information on the size, location and status of each of our projects. Gord, Scott Northup and myself will be in attendance on October 11th.

Below, we have also included a site visit to our New Brighton Park Shoreline Restoration Project which is in close proximity to our office.

This site visit will provide us the opportunity to describe the project's key features to you.

s.19(1)

Please let us know if you have any suggested edits/changes to what we propose below:

DRAFT AGENDA	Lead (Duration)
Meeting: 10 AM - 12 PM	
1. Overview of VFPA's Habitat Enhancement Program	VFPA (5 min)
2. Project example for delivery of habitat projects: <u>New Brighton Park Shoreline Restoration Project</u>	VFPA (10 min)
3. Video presentation of all VFPA (HEP) habitat projects	VFPA (15 min)
4. VFPA presentation on challenges related to the implementation of proponent-led habitat banks	VFPA (30 min)
5. DFO update on proposed changes to regulations and guidance on habitat banks	DFO (30 min)
6. Discussion on challenges related to habitat banking	VFPA/DFO (30 min)
Lunch: 12 PM - 1 PM	
• VFPA to host lunch	
Site Visit to habitat project: 1 PM - 2 PM	
1. Travel to and from New Brighton Park Shoreline Restoration Project	VFPA will provide transportation (15 min)
2. NBP Site Tour	VFPA (30 min)

Regards,
Charlotte

Charlotte Olson P.Geo., PMP
Manager, Infrastructure Habitat Development



Vancouver Fraser Port Authority
100 The Pointe, 999 Canada Place
Vancouver, B.C. Canada V6C 3T4

P: 604.665.9590 | CELL: 604.349.4111
portvancouver.com

Smith, Shona

Subject: Canceled: HOLD for Aboriginal Consultation on DFO-VFPA Arrangement for Habitat Banking
Location: Chilliwack
Start: Wed 10/10/2018 9:00 AM
End: Wed 10/10/2018 1:30 PM
Show Time As: Free
Recurrence: (none)
Meeting Status: Not yet responded
Organizer: Scoble, Jemma
Required Attendees: Olson, Charlotte; Ruffo, Gord; Byron.Nutton@dfo-mpo.gc.ca; Suzanne.Thorpe@dfo-mpo.gc.ca
Optional Attendees: Rose, Alwyn; Smith, Shona
Importance: High

I have just received confirmation that this meeting is being rescheduled to November.

Smith, Shona

Subject: Habitat Enhancement Workshop
Location: Brentwood Bay Resort - Garden Room - 849 Verdier Ave, Brentwood Bay (Vancouver Island) BC V8M 1C5

Start: Tue 10/16/2018 9:00 AM
End: Tue 10/16/2018 1:30 PM
Show Time As: Tentative

Recurrence: (none)

Meeting Status: Tentatively accepted

Organizer: Scoble, Jemma
Required Attendees: Olson, Charlotte; Ruffo, Gord; Suzanne.Thorpe@dfo-mpo.gc.ca; Byron.Nutton@dfo-mpo.gc.ca
Optional Attendees: Smith, Shona

*This meeting with Vancouver Island First Nations moved from October 11.
Meeting start time anticipated to be 9:00 am.

VFPA-HEP & DFO Consultation with Aboriginal Groups on:

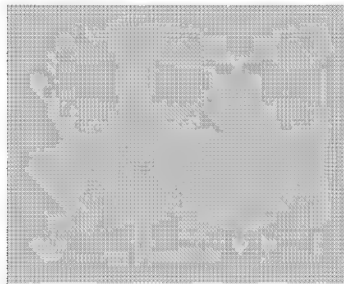
- VFPA-HEP's Consultation Process for Habitat Banking Projects (VFPA)
- Overview of Proponent-led Habitat Banking (DFO)

Date: Tuesday, October 16, 2018

Time: 9:00 a.m. to 1:30 p.m.

Location: Brentwood Bay Resort, Brentwood Bay

Participants:



Jemma Scoble, VFPA
Sinead Deery VFPA
Charlotte Olson, VFPA
Gord Ruffo, VFPA
[redacted], Hemmera

Byron Nutton, DFO
Suzanne Thorpe, DFO
Shona Smith, DFO

Agenda:

- | # | <u>Item</u> |
|----------|--|
| 1. | Introductions |
| 2. | VFPA Presentation <ul style="list-style-type: none">• Objectives of Information Session• Overview of VFPA's Habitat Enhancement Program• Overview of Aboriginal Consultation and Engagement on Habitat Banking Projects• Project example: New Brighton Park Shoreline Habitat Restoration Project |
| 3. | DFO Presentation <ul style="list-style-type: none">• Requirements for Fisheries Act Authorizations• Proponent-led habitat banking• Habitat banking arrangements |
| 4. | Questions and General Discussion |

s.19(1)

Documents Provided:

1. VFPA Presentation – Information Session on VFPA's Aboriginal Consultation Process for Habitat Banking Projects (VFPA HEP presentation)
2. Overview of Proponent-led Habitat Banking (DFO presentation)
3. Frequently Asked Questions on Proponent-led Habitat Banking (DFO provided)

Summary of Discussions:

An overview of the Habitat Enhancement Program was provided by VFPA. VFPA has had a banking agreement with DFO for the last 5 years and the purpose of the meeting is its renewal.

<VFPA presentation>

A question was asked regarding the word "balance" and what that means to VFPA; whether the port intends to incorporate previous development into finding balance? Clarity was also sought about measuring such balance between infrastructure today and providing a healthy environment, specifically referring to measuring thresholds and confirming "balance". VFPA responded that they generally focused on improving areas that were previously affected (e.g., log debris from booms) and that they consider past/future development and opportunities to restore previously affected areas in order to try to balance impacts from development.

A question was asked about the types of partnerships that VFPA forms with organizations, aside from the habitat banking partnership with DFO. VFPA responded that they have many partnerships and they actively look for opportunities to partner with others. As an example, VFPA pointed to work with PSF related to eulachon on the Fraser.

Comments were made regarding municipal projects, and the level of authority that VFPA and DFO have over such projects when First Nations have concerns about them. VFPA indicated that they try to align with municipalities, when possible but that there are often other factors and priorities that are taken into consideration. DFO advised that they don't have authority over municipalities per se, but that when there is opportunity for habitat restoration, that there is effort to try to link and resolve interests between parties.

Concerns were raised regarding local government allowing effects on habitat due to development, and a desire for DFO to address it. DFO responded that with the new changes to the *Fisheries Act*, there would be opportunity to be (re)involved in integrated planning processes, rather than just considering serious harm to fish, which is a reactive and legislative approach. DFO encouraged engagement on the *Fisheries Act* review.

Additional note: many municipalities have their own environmental departments and by-laws and regulations to support environmental protection within their land boundaries. DFO reviews municipal projects that are likely to result in serious harm to fish or fish habitat but these only account for a small percentage of projects that are undertaken. The province of BC also has regulations that may pertain to municipal projects.

Advice was given to VFPA and DFO that project monitoring (data and results) is of interest to First Nations, as well as determining what obstacles are needed to be overcome to enable a restoration project (e.g., dealing with geese issues at Glenrose). It was also indicated that project monitoring needs to be reported with context of the long term benefits and indicator targets (e.g., reports of fish). VFPA agreed and indicated that post construction updates and reporting is important and advised that this information is shared with interested First Nations. VFPA advised they will continue to improve on the reporting and sharing information.

Concerns were raised regarding monitoring undertaken on restoration projects. There is a need to understand what monitoring is being undertaken and for what purposes.

There was broad discussion about the quantitative analysis and qualitative analysis undertaken to support VFPAs restoration projects. VFPA indicated that monitoring results reports are prepared each year and that measures are taken to accelerate the recovery of

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habitat and prevent any impacts to restored habitats. To date, VFPA's monitoring has largely been based on standard methodologies and generally, plant-based indicators. VFPA advised that there is opportunity to modify the program in place and consider other targets and factors as the program develops. DFO indicated that the habitat program is proponent-led so the indicators and measures are generally proposed by the proponents for acceptance by DFO, and that proponents are responsible to show restoration success prior to the project being accepted for use in a habitat bank as credit. A specific comment was made by regarding the importance of the density of eelgrass and its role as an ecosystem health indicator. It was suggested that the indicators should be based on a healthy ecosystem approach, rather than comparison to a reference site that may not be functioning to maximum capacity as a healthy ecosystem/ good indicator.

Concerns were raised regarding project placement (location) and the surrounding conditions (e.g., water quality issues). There was discussion about the choice and establishment of projects, and ensuring projects are located where there is a strong likelihood of success and/or in addressing habitat that is lacking in certain areas, or other limiting factors. As well, VFPA and other agencies consider project benchmarks. This relies on research regarding project feasibility as well as other studies. VFPA advised that there is a fundamental basis of scientific research needed and a high degree of comfort that the background research is right, as it guides what projects are technically feasible.

Concerns were raised about shellfish closures, contamination and the use of water for cultural reasons, as well as concerns about levels of bacteria and its resulting effects on people. Dredging and industrial development concerns were also raised.

The importance of indicator species (crab, sea urchin) to First Nations was brought forward, as well as the need to ensure sustainable food-based ecosystems to support First Nations food fisheries and rights to harvest. The water being "alive" is an important concept.

Concerns were also raised regarding industries that cause impacts and those industries not having a role to restore/ rehabilitate the areas used. VFPA acknowledged this, but also indicated that they can only address areas within which the port has administration. VFPA discussed the positive merits of working in partnership for restoration projects and advised about how they are trying to set positive examples of successful projects with municipal and public support that other industries can consider in their restoration efforts (e.g., New Brighton Park). VFPA discussed the projects developed on port land and advised that studies are completed to ensure that impacts are avoided as best as possible. VFPA noted that the new projects do not address past effects, per se, but moving forward through the Habitat Enhancement Program they are ensuring that any new impacts are fully mitigated and/ or offset. DFO advised that with regard to past impacts, that the federal government has salmon enhancement funding opportunities available and that the new proposed legislation and upcoming funding opportunities may result in an increased mandate for undertaking additional restorative work.

A concern was raised about a project severely impacting Tsartlip's estuary, where eelgrass and fish passage across a dam were/are purportedly affected by stream restoration works. First Nations expressed that those proponents with funding should have some level of responsibility for these types of projects.

VFPA indicated that their main source of funding is from capital infrastructure at the port and that they are building habitat in advance of port development.

There was discussion on the willingness and capability of VFPA to complete offsets/ habitat banking outside of the Lower Mainland and VFPA indicated that they would be open to consideration of projects within their service area, and on Vancouver Island. First Nations would like to have some projects considered near the Nanaimo River estuary and in the

Fraser River (specific to the South Arm). Further engagement will be needed to flesh out potential considerations and understand what projects First Nations would recommend. VFPA advised that they are considering opportunity for a large proposed project referred to as the "South Arm Jetty", which may have potential restoration opportunity over 30-40ha but that as with any project, there are challenges due to land use and other infrastructure limitations.

First Nations requested review of project ideas and recommendations that are not currently listed by VFPA, and broadly indicated support for restoration projects in general. There is a desire by Indigenous groups on Vancouver Island to specifically consider proposals for projects on the Fraser River. Concerns were also raised about log storage/ removal, dyking. VFPA advised that they have discussed dyking issues with some municipalities and considering if there may be opportunities to protect/ enhance habitat, as well as consider implications due to sea level rise.

First Nations discussed the challenges in bringing forward discussion on First Nations history and way of life. Their history dates far back and their legacy defined through stories about how people would travel up the Fraser and camp; and this includes stories of how fish were bought from First Nations right off their boats, and of women roasting ducks harvested from local marshland areas. First Nations wants people to know that sea asparagus is edible and that it provides habitat. The interconnectedness of species and habitat is important and has purpose; there are food web linkages, for example, from barnacles to other animals. A high importance is place on teaching and legacy. There is a desire for certain kinds of "legacy projects", to teach others and leave a legacy for young people via engagement in these projects – through pictures and through understanding their culture and history.

<Break>

VFPA discussed the involvement of First Nations in projects and the consultation process undertaken to identify priorities (e.g., for New Brighton: ecological signage including traditional knowledge for education, cultural recognition).

VFPA also discussed the need for maintenance and monitoring when habitat is built.

There was an inquiry about accounting for climate change and VFPA advised that it is addressed in the design phase, especially since most of their habitat restoration is located in areas having coastal/tidal influence. A follow up inquiry was asked about the protection of restoration habitat(s) after they are established. VFPA responded that the restoration areas are designated conservation under a land use plan. There are protections in place overall for fish habitat, per the *BC Fish Protection Act* and the federal *Fisheries Act*.

<DFO presentation> "Overview of Proponent-Led Habitat Banking"

DFO advises that they will be presenting information on the policy that supports the habitat banking policy as per current legislation. DFO noted that the *Fisheries Act* review and possible amendments are in progress through Parliament but that while the language of the Act may change, the general principles of protecting fish habitat are unlikely to change and there is still expected to be habitat banking defined in the Act.

A comment was made that when referring to guiding principles (#1) that they seem to be supportive of commercial fishery. Questions were asked regarding "Where do First Nations priorities fit in here? What are the local restoration priorities?" A recommendation was made that there should be a separate guiding principle to offset in a way that supports First Nations cultural values. DFO clarified that the guiding principle (#1) includes First Nations fisheries, and is not meant to preclude any type of fisheries.

A follow up question was asked regarding guiding principle #2 regarding how offsetting measures would "balance" project impacts and what that means. DFO responded by

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clarifying that the guiding principles are national principles specific to the offsetting guidance and process. If DFO contemplates issuing an authorization for serious harm to fish, there is counterbalancing/offsetting of that harm. There was some discussion regarding the process of effects assessment, residual impacts and offsetting those residual impacts, noting that site specific assessments are undertaken to try to understand impacts and offset them.

A question was asked about whether or not DFO works with First Nations directly to understand the impacts? DFO confirmed they do work with First Nations to understand impacts and noted there are 2 parts to habitat banking: i) building habitat prior to building projects requiring offsetting and, ii) issuing of an authorization from DFO for an impact. There is engagement and consultation on all of these aspects.

A question was raised on whether or not New Brighton Park was offsetting a specific development. DFO responded that that New Brighton was not an offset for a specific development but that habitat banking means you are building the offset up front. At some point down the road, there might be a development that causes an impact and VFPA would apply to use the bank if applicable to their project. Habitat banking is not a typical approach where you build habitat to offset a specific project.

There was discussion regarding use of the term "*conservation project*" in reference to habitat banking. DFO noted that it is a term used in the policy document to distinguish between a habitat development project and an offsetting project. First Nations noted that there may be concerns with the term because Aboriginal rights can be set aside in favour of conservation; they feel the reference needs to be changed. New Brighton Park shouldn't be considered a conservation project; rather it should be described as a habitat enhancement project. This is important in relation to Aboriginal rights and title interests. There is also strong concern that a proponent may unduly sway the Crown in terms of habitat banking project use. The concern is that proponents have a "bank" they can automatically draw from, with construction down the road. DFO noted the terminology concern and also advised that *Fisheries Act* may change; however, the new Act is likely to be supportive of habitat banking. The information we have is that the proposed Act is likely to take elements of the policy and bring it into the new *Fisheries Act* on a more formal basis as a way to deal with offsetting.

Concerns were raised regarding the overall concept of habitat banking and that it could be used to unduly sway the Crown to grant an Authorization (if habitat is already banked).

A general concern was also raised by First Nations regarding a need for addressing dyking on the south arm of the Fraser River at a strategic/ innovative level. First Nations are very connected to this land, and its water and resources; as well, it affects several aboriginal fisheries. There is a need for DFO to help to deal with fisheries issues in the area. DFO noted the concern and committed to bring this up to other sectors in the Department. DFO advised that efforts are being made to try to balance benefits of habitat banking (i.e., doing things up front) to make sure that down the road, when it is being used to offset, there is a really clear understanding of the specific benefits of the banking project to balance the impacts of the project. It was further noted that having a habitat bank doesn't guarantee that you will receive an authorization as the impacts would be evaluated separately from the offsetting.

Concern was raised that DFO doesn't say "no" to projects. Examples of projects where DFO has not granted an authorization were briefly discussed (e.g., Fish Lake (Taseko)). DFO explained that even if an authorization isn't denied, proponents often 'cut their losses' earlier in the review process, so a project review doesn't often conclude by 'denying' an authorization. Such projects are often rescinded by proponents then sometimes resubmitted after having been relocated or revised. Regulatory staff review the projects and apply

standard mitigation measures to avoid impacts. There is reliance is on consultants, as professionals, to design a project to avoid/mitigate impacts to fish and fish habitat.

Under the new *Fisheries Act* there a public registry of projects is proposed.

Concerns were noted concerns regarding Atlantic fish farms.

Additional habitat bank concerns were raised about the projects being discussed being tied to specific locations - that DFO was requesting acceptance of impacts in relation to those projects at this time.

Additional note: DFO is not undertaking any projects-specific consultations to exercise any legislative authority under the Act at this time. The intent of this meeting was to discuss the VFPA-DFO arrangement that may enable future projects, and determine how First Nations would like to engage on habitat banking.

DFO clarified that consultation will be completed when the impact is proposed and that consultation for a Fisheries Act authorization is required when DFO contemplates a decision under the Act. This is what the Fisheries Protection Program does. DFO consults on the impacts being proposed and on whether all the avoidance/mitigation measures have been applied, and what should be done to offset impacts. Although there is some uncertainty around offsetting (i.e., is it functioning or not?), the intention of habitat banking is that there is benefit from having certainty of whether the habitat is functioning and productive.

There was discussion on habitat creation; land-based vs habitat created in the ocean. DFO indicated that habitat creation is somewhat different than restoration. Restoration is the rehabilitation of something which was previously fish habitat that may have been lost, whereas habitat creation is about creating something new. The intention of habitat banking is to create and improve net benefits to fish.

There is a strong desire from First Nations to be brought in early to discuss habitat banking at the forefront when habitat banking is being planned, not just when there is a project requiring consultation. With regard to "habitat" it needs to be recognized that you can't create habitat, you can only change habitat and that you are displacing something to create habitat, whether or not it is land-based and that, too, needs to be accounted for. There were questions regarding when consultation effort was undertaken by DFO in regards to habitat banking. DFO confirmed that the federal legal consultation requirement is as part of a permitting authority.

There was some discussion on what this means. DFO advised that if there is no serious harm to fish that proponents would not need authorization - prior to building some types of habitat banking projects (i.e., if the project was land-based). For New Brighton Park, VFPA were digging a hole in the park. The park wasn't providing a benefit to fish, now it is. It did not require a *Fisheries Act* Authorization.

Concern was expressed regarding this approach to habitat banking and the need for authorization for the New Brighton Park project as it is attached to a major water source. From a First Nations perspective, the area is occupied and used and consultation is needed when making those changes.

There was discussion on consultation. Concerns were expressed that the Nations present aren't being sufficiently consulted. It was expressed that Aboriginal rights and title (under the Douglas Treaty) are perpetual and that the First Nations need to preserve their relationship with the Crown and ensure they do not fetter those rights. Habitat banking should be viewed under a full-spectrum lens to ensure consultation is fulsome and adequate.

VANCOUVER FRASER PORT AUTHORITY | MEETING NOTES

DFO noted that while habitat banking in concept isn't new, that the point of meeting now is to advise that the Port has a habitat bank, that the bank agreement is being renewed and as well, to understand what the concerns around the VFPA bank are. It is not intended this to be consultation on the overall system of habitat banking, although those concerns will be noted.

Participants advised that they haven't been included in previous conversations on habitat banking and that in light of reconciliation, First Nations communities should be included in all decision making relevant to their lands, waters, resources including those regarding habitat banking. Habitat banking needs to be discussed at the point that projects are being initiated. First Nations expressed their desire to be involved in decision-making and in setting goals together for habitat banking that are acceptable to First Nations. Traditional knowledge should be considered, with the end goal of consumption in mind.

VFPA responded that they will discuss the development of objective measures and the incorporation of First Nations into project planning and project development. They advised that the projects recently completed were improved due to working with First Nations from the beginning. VFPA advised that they want to know how to implement this and work with Nations and determine what that looks like [for each nation]. The proposed process presented is a starting point, and VFPA is seeking advice on defining and creating the path forward.

VFPA and DFO acknowledged that there may be a need for further discussions on habitat banking projects. These discussions are on the current proposed arrangement between VFPA and DFO, which is a high level arrangement that isn't specific to projects at the ground level. The arrangement itself is about how to manage, build and deliver on habitat banking projects. Processes for seeking input on projects and gaining input are not concluded, and this approach is to gather input from the beginning to inform later stages and determine how Nations wish to be engaged/ consulted.

First Nations consider it a significant issue that they feel they are forced into a pre-approval, pre-consultation environment for habitat banking - not specifically in relation to VFPA but in general. There is a strong desire to understand what all of the projects are, what projects will be proposed or put forward ahead of others and why. The process is as important as the outcome decisions for habitat banking projects and this is very important.

There was discussion on the Douglas Treaty as First Nations advised that the Douglas Treaty has never been recognized by DFO. There is concern that it has not been acknowledged but that DFO wants their consideration for habitat banking. Sentiment was expressed that habitat banking is a way out of infringement and that DFO is justifying infringement on Aboriginal and treaty rights - should call it an "infringement bank". There is a strong desire across all levels of government of good engagement.

VFPA and DFO committed to follow up with attendees and provision of summary notes. Consideration will be given to a follow up meeting should attendees wish to have further discussion regarding issues that were brought up, and on the processes and proposed DFO-VFPA habitat banking arrangement.

Thorpe, Suzanne

From: Olson, Charlotte <Charlotte.Olson@portvancouver.com>
Sent: Thursday, October 18, 2018 12:57 PM
To: Nutton, Byron
Cc: Thorpe, Suzanne; Ruffo, Gord; Assier, Gilles
Subject: RE: DFO-VFPA Arrangement - DRAFT Aug 14 - FOR DFO REVIEW - respond by Oct 31 please
Attachments: 2018-08-14 VFPA proposed changes to Habitat Bank Arrangement.docx

Hi Byron, further to my note below – thanks for speaking briefly about this on Tuesday.

It is important that DFO respond in writing to my request below – **please respond by Wed October 31st with any comments to VFPA**. Specifically, it is VFPA's understanding that we have reached agreement on the key terms expressed in the attached draft document that we have been working with you on, for over a year. If there are DFO-proposed changes to what is presented in this Aug 14/18 draft document, they need to be identified immediately to VFPA please.

Please respond by email to myself & Gord Ruffo. Thank you again for your attention to this.

PS – I am out of the country starting on Oct 19, please call Gord (604-202-8022) if you'd like to discuss in person, but we do ask for a written response please. Gord will be following up.

Charlotte Olson P.Geo., PMP
Manager, Infrastructure Habitat Development

CELL: 604.349.4111

From: Olson, Charlotte
Sent: Monday, October 15, 2018 8:58 AM
To: 'Nutton, Byron' <Byron.Nutton@dfo-mpo.gc.ca>
Cc: 'Thorpe, Suzanne' <Suzanne.Thorpe@dfo-mpo.gc.ca>; Ruffo, Gord <Gord.Ruffo@portvancouver.com>; Assier, Gilles <Gilles.Assier@portvancouver.com>
Subject: RE: DFO-VFPA Arrangement - DRAFT Aug 14 - FOR DFO REVIEW
Importance: High

Hi Byron,

Following our meeting on Thursday Oct 11 at VFPA, there was some concern with VFPA senior management regarding the status of our current draft Arrangement (re-attached here) – dated Aug 14/18, it is with you for review/comment. The current draft sent below in August, addresses all your comments sent to us in March 2018 (see email trail below).

Please reply here immediately if there are additional changes DFO is considering, that VFPA has not been advised of. Per attached Aug 14 draft – the attached is our understanding of our current Arrangement draft, for your review & comment as of mid-August.

Please respond as soon as possible with any comments, particularly if DFO has changed your approach to any items.

Thanks, Charlotte

Charlotte Olson P.Geo., PMP
Manager, Infrastructure Habitat Development

CELL: 604.349.4111

From: Olson, Charlotte

Sent: Wednesday, August 15, 2018 4:08 PM

To: Nutton, Byron <Byron.Nutton@dfo-mpo.gc.ca>

Cc: Thorpe, Suzanne <Suzanne.Thorpe@dfo-mpo.gc.ca>; Ruffo, Gord <Gord.Ruffo@portvancouver.com>

Subject: RE: DFO-VFPA Arrangement - DRAFT Aug 14 - FOR DFO REVIEW

Importance: High

Good afternoon Byron

Please find attached VFPA's most current proposed version of the draft Arrangement dated Aug 14/18. This follows on the March version/comments you had sent below.

You will see that:

- We now show Annex F & G – as requested, edited in the text of the Arrangement (in blue) – and attached at the end of the document in draft
- We also indicate the Service Area within the draft (see Annex A)
- Other edits to address your notes/comments below

Using what you sent below, our legal team has prepared the attached draft dated August 14, 2018 for DFO review.

Thanks, and we look forward to meeting with you both next week!

Charlotte

Charlotte Olson P.Geo., PMP
Manager, Infrastructure Habitat Development

CELL: 604.349.4111

From: Nutton, Byron [<mailto:Byron.Nutton@dfo-mpo.gc.ca>]

Sent: Friday, March 16, 2018 2:16 PM

To: Olson, Charlotte <Charlotte.Olson@portvancouver.com>; Ruffo, Gord <Gord.Ruffo@portvancouver.com>

Cc: Thorpe, Suzanne <Suzanne.Thorpe@dfo-mpo.gc.ca>

Subject: RE: March 7 DFO-VFPA HEP Meeting Follow Up - Actions

Hi Charlotte and Gord.

Please see the attached Arrangement with edits. Other than minor editorial changes, they generally relate to the outstanding items from the list I previously provided (i.e. third parties, indigenous engagement, information sharing) but Suzanne also made a few other suggestions unrelated to these items, which we feel improve the document. Similar to last time, it was getting pretty messy with track changes so I high-lighted the changes (Note: I might have missed high-lighting a few typos, etc. but certainly got all substantive ones). In cases where the edit is a deletion, I high-lighted the text and formatted as strike-through. There are also a couple of notes/suggestions without specific wording. Once you have had a chance to review, I'd be happy to discuss any concerns you might have.

In particular, we spent quite a bit of our effort trying to work out edits that address our outstanding concerns regarding the flexibility to consider third party engagement. Related edits, both larger and smaller, occur in several section of the

Arrangement as well as Annex A. I think that we have managed to do so in a manner that meets VFPA's aspirations, but you have concerns in this regard please call me to discuss.

We added a section titled Indigenous Engagement which pretty much just refers to the proposed new Annex that Jemma is currently updating. As noted in the comments provided in that section, to be complete we probably need to add a step in the Annex on use of credits.

We added a clause to the Information Sharing section to accommodate DFO's review process, followed the wording you used for information sharing relating to VFPA's permitting process.

The only other outstanding item from the list I previously provided relates to Service Area, which is with you to reconsider in the context of Indigenous engagement.

Again, please feel free to give me a call to discuss any of these revisions. Otherwise I look forward to hearing back from you on a revised consultation annex, a first draft of a consultation plan, and your thoughts with respect to service area.

Cheers,

Byron

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~~DFO proposed changes dated March 16, 2018~~ VFPA proposed changes dated August 14, 2018

Habitat Bank Arrangement:

PORT OF VANCOUVER HABITAT BANK

Between

VANCOUVER FRASER PORT AUTHORITY

AND

HER MAJESTY THE QUEEN IN RIGHT OF CANADA, as represented by the Minister of
Fisheries and Oceans on behalf of Fisheries and Oceans Canada ("DFO")

●XXXXXX, 2018

NOTE: the word Annex is something all caps and sometimes not...

PATH Number: [INSERT PATH NUMBER]

DFO proposed changes dated March 16, 2018 VFPA proposed changes dated August 14, 2018

1. INTRODUCTION

This document sets out the principles of the mutual understanding between **Vancouver Fraser Port Authority ("VFPA")** and Fisheries and Oceans Canada ("DFO") (hereafter referred to as "the Participants") for the **Port of Vancouver Habitat Bank ("Habitat Bank")**.

WHEREAS:

- a. Fisheries and Oceans Canada (DFO) is responsible for the administration of the *Fisheries Act*, more specifically the fisheries protection provisions including ~~Sections~~ sections 6, 20, 21, 35, 37, and 38 related to the conservation and protection of Canada's marine and freshwater fisheries resources and their habitats from the impact of human activities. The purpose of the fisheries protection provisions, as set out in Section 6.1 of the *Fisheries Act*, is to provide for the sustainability and ongoing productivity of commercial, recreational and Aboriginal fisheries;
- b. DFO is responsible for the administration of the *Species at Risk Act* ("SARA") with respect to aquatic species other than those individuals in or on federal lands administered by the Parks Canada Agency and, in that capacity, the Minister of Fisheries and Oceans has powers and duties with respect to protecting aquatic species listed under that Act and providing for their recovery;
- c. The Fisheries Protection Policy Statement's goal is to promote compliance with the *Fisheries Act* in order to contribute to the purpose set out in section 6.1 of the *Fisheries Act*;
- d. This Arrangement does not commit DFO to the authorization of any future work, undertaking or activity requiring an authorization under paragraph 35(2)(b) of the *Fisheries Act*, or permit any future project requiring a permit under sections 73 and 74 of the *Species at Risk Act*. All future projects will be reviewed on their own merit and a decision on whether to authorize or permit will be made independent of the existence of a habitat bank arrangement. This Arrangement, and any related communications between DFO and VFPA do not constitute a representation or commitment of any kind regarding authorization of any future projects by DFO. This Arrangement, and any related communications, moreover does not constitute a commitment that any habitat credits that may be issued will be acceptable in the context of future applications for *Fisheries Act* authorizations or SARA permits.
- e. VFPA is a port authority established by the Government of Canada pursuant to the *Canada Marine Act* and is accountable to the federal Minister of Transport. VFPA has a mandate to facilitate Canada's trade objectives, ensuring goods are moved safely, while protecting the environment and considering local communities. In fulfilling the mandate, VFPA carries out a variety of duties, including infrastructure development to support growth and efficient operations. The Habitat Bank can support such infrastructure development when habitat credits are acceptable in the context of future *Fisheries Act* authorizations or SARA permits.

~~DFO proposed changes dated March 16, 2018~~ VFPA proposed changes dated August 14, 2018

- f. The Participants entered into a Working Agreement dated July 31, 2012 (“Working Agreement”) relating to the procedures for development and operation of a VFPA-led habitat bank for a five (5) year trial period which was extended by the Participants to ~~September 10, 2018~~ March 31, 2019;
- g. VFPA has undertaken several habitat creation and enhancement projects in consultation with DFO pursuant to the Working Agreement, which are included in Annex E (“Existing Projects”); and
- h. This Arrangement will replace the Working Agreement and the Existing Projects will be managed pursuant to this Arrangement.

THEREFORE, the Participants agree to the following arrangement (“Arrangement”).

2. PURPOSE

To support VFPA in fulfilling its mandate (referred to in paragraph e above) by facilitating infrastructure development when habitat credits from the Habitat Bank can be applied to meet future offsetting requirements for such development.

To replace the Working Agreement with this Arrangement and to establish revised principles for the continuation and management of the Habitat Bank by:

- establishing a working relationship between the Participants based on trust, accountability and information sharing;
- establishing a clear understandable Arrangement for managing the Habitat Bank; and
- increasing certainty in the administration of the Habitat Bank.

3. OTHER GENERAL INFORMATION

The activities carried out under this Arrangement will be consistent with:

- *Fisheries Protection Policy Statement* (2013);
- *Fisheries Productivity Investment Policy: A Proponent’s Guide to Offsetting* (2013);
- *Interim Fisheries Protection Program’s Guide to Proponent-led Habitat Banking* (October, 2016) (“Guide”);
- any ~~relevant~~ relevant Species at Risk Recovery Strategies and management considerations; and
- any relevant Fisheries Management Objectives.

~~DFO proposed changes dated March 16, 2018~~ VFPA proposed changes dated August 14, 2018

4. SCOPE

The scope of this Arrangement is limited to the continuation and administration of the Habitat Bank described in Annex A, and including conservation projects proposed in accordance with Annex B and the Existing Projects (described in Annex E).

5. ROLES AND RESPONSIBILITIES

The roles and responsibilities of the VFPA are:

- Jointly managing the performance of the Arrangement with DFO;
- Identifying, designing, constructing, monitoring, maintaining, and protecting conservation project sites;
- Meeting all other applicable federal, territorial, provincial and municipal requirements that apply to conservation projects;
- Reporting on performance of conservation projects;
- Accurately maintaining a copy of the habitat credit ledger; and
- Preparing and submitting Progress Reports for the Arrangement.

The roles and responsibilities of DFO are:

- Jointly managing the performance of the Arrangement with VFPA;
- Reviewing, providing advice and confirming conservation project proposals;
- Reviewing Progress Reports, validating habitat credit balances in the habitat credit ledger, and processing habitat credit ledger transactions;
- Verifying the reported results of conservation project performance in the Progress Reports;
- When appropriate, carrying out direct monitoring (i.e., a site visit to gather and analyse samples or information in order to directly verify compliance and effectiveness) and/or carrying out indirect monitoring (i.e., an assessment of information provided in Progress Reports to verify compliance and effectiveness) of conservation project sites; and
- Reviewing and processing Progress Reports of the Arrangement.

The Participants shall fulfill their responsibilities under this Arrangement in accordance with the provisions of federal, provincial and territorial laws and regulations that govern their activities. Should a Participant not be able to perform a function under this Arrangement, the affected Participant will immediately contact the other signatories of this Arrangement so that early resolution can be reached.

6. MANAGEMENT PROVISIONS

This Arrangement establishes the following management provisions for the administration of the Habitat Bank:

~~DFO proposed changes dated March 16, 2018~~ VFPA proposed changes dated August 14, 2018

- The accountability lies with the office of signatories of the Arrangement: Director, Infrastructure Sustainability, Vancouver Fraser Port Authority and Regional Director, Ecosystems Management, DFO Pacific Region.
- The day to day administration of the Arrangement will be carried out by: Program Manager, Habitat Enhancement Program, Vancouver Fraser Port Authority and Team Lead, Partnerships, Standards and Guidelines, Fisheries Protection Program, DFO Pacific Region.

7. ADMINISTRATION OF THE HABITAT BANK ARRANGEMENT

- Specific details related to the principles of the administration and operation of the Habitat Bank are included in ~~ANNEX~~ Annex A;
- Conservation projects that are proposed for development are to be submitted for review and confirmation by DFO using the “Project Confirmation” template set out in ~~ANNEX~~ Annex B;
- Habitat credits held within the Habitat Bank shall be tracked using the “Habitat Credit Ledger” template and frequency set out in and described in ~~ANNEX~~ Annex C;
- Progress Reports shall be prepared and submitted annually in accordance with the requirements of ~~ANNEX~~ Annex D;
- Existing Projects that were either constructed or proposed for construction under the terms of the Working Agreement are identified in ~~ANNEX~~ Annex E; and
- Indigenous consultation and engagement related to ~~administration~~ the use of habitat credits is described in the Habitat Bank will follow the process outlined in ~~ANNEX~~ Annex F.

8. SHARING OF INFORMATION

While this Arrangement is in effect and at all times thereafter, each of DFO and VFPA and any officers, employees or agents of each of them shall treat all information, data, documents, reports and materials acquired or to which access have been given in the course of, or incidental to, the performance of this Arrangement as confidential, subject to the federal *Access to Information Act* and the *Privacy Act*. With the exception of the Arrangement, the annexes to the Arrangement and annual Progress Reports, which VFPA may disclose from time to time, the Participants shall not disclose or permit to be disclosed such information, data, documents, reports and materials, unless:

- the Participants agree to the disclosure;
- the disclosure is part of the application and review process of VFPA’s Project and Environmental Review for a proposed conservation project, which would include disclosure of project-specific information, engagement information for public/stakeholder and Indigenous groups and technical content, and the posting of on-line information;
- the disclosure is part of the application and review process by DFO for a proposed development project that would utilize habitat banking credits as offsetting, which would include disclosure of project-specific information, engagement information

~~DFO proposed changes dated March 16, 2018~~ VFPA proposed changes dated August 14, 2018

- for public/stakeholder and Indigenous groups and technical content, and the posting of on-line information;
- the disclosure is part of an application and review process of other regulatory agencies (such as Environment Canada for Disposal at Sea permit) for a proposed conservation project, which would include disclosure only as required by the such agencies;
- the disclosure relates to ~~consultation and engagement~~ the sharing of conservation project plans with Indigenous groups as part of the Indigenous Consultation and Engagement Process set out in ANNEX Annex FG;-
- the disclosure is to a third party as part of the Habitat Bank Administration as described in Annex A;
- the disclosure is required by law;
- the information was obtained from the public; or
- the information is available to the public.

9. CONSULTATION AND ENGAGEMENT

The Participants will collaborate on an approach to meaningfully engage and consult with Indigenous groups having regard to the process being undertaken by VFPA's Habitat Enhancement Program for the development of conservation projects and the involvement of Indigenous groups that is described in in accordance with the Indigenous Consultation and Engagement Process set out in ANNEX Annex FG.

~~NOTE: Add a step to the consultation annex to capture consultation when credits are withdrawn... DFO undertakes consultation with potentially affected Indigenous when contemplating the issuance of an Authorization under Section 35(2)(b) of the Fisheries Act in relation to a development project, including the proposed use of habitat banking credits to meet offsetting requirements.~~

10. DIFFERENCES IN INTERPRETATION AND APPLICATION

The Participants will endeavor to resolve issues regarding the implementation of this Arrangement in a timely manner using mechanisms available to the Participants. Where an issue remains unresolved, the pre-eminent jurisdiction responsible for the matter under consideration will make the final determination and seek concurrence from Director, Infrastructure Sustainability, Vancouver Fraser Port Authority and Regional Director, Ecosystems Management, DFO Pacific Region.

~~DFO proposed changes dated March 16, 2018~~ VFPA proposed changes dated August 14, 2018

11. PROGRESS REPORTS

The VFPA will prepare progress reports using the form described in Annex D ("Progress Report") on the achievements and challenges encountered during the reporting period of this Arrangement as it relates to the purposes identified in section 2 of this Arrangement.

The Progress Report should be submitted within ninety (90) calendar days from the conclusion of each year. A year will be considered to run from January 1 to December 31.

The Progress Report will be submitted to the Office of signatories of the Arrangement, Director, Infrastructure Sustainability, Vancouver Fraser Port Authority and Regional Director, Ecosystems Management, DFO Pacific Region, for their concurrence.

All Progress Reports will conform to the requirements set out in ANNEX D.

12. REVIEW

At the end of each five (5) year period during which this Arrangement is in effect, the Regional Director, Ecosystems Management, DFO Pacific Region, will establish a review team consisting of Program Manager, Habitat Enhancement Program, Vancouver Fraser Port Authority and Team Lead, Partnerships, Standards and Guidelines, Fisheries Protection Program, DFO Pacific Region, or an appropriately qualified and mutually agreed to third party to review the effectiveness of activities under this Arrangement. This review team will report to the Regional Director, Ecosystems Management, DFO Pacific Region, within six (6) months of being established. [NTD: What is the intended result of the review?]

13. AMENDMENT

The Arrangement may be amended at any time in writing and by mutual consent of the Participants. An amendment will be confirmed by an exchange of letters, signed by the Participants, setting out the amendment and its effective date.

14. FINANCIAL ARRANGEMENT

This Arrangement will not impose any additional financial responsibilities on the Participants, except that each Participant will be responsible for the staff and funding costs it incurs in its own interests, related to the support of the Arrangement.

15. DURATION, WITHDRAWAL AND TERMINATION

This Arrangement is in effect for a period of ~~ten~~ fifteen (15) years. VFPA can request renewal of the Arrangement for an additional defined term (of no less than five (5) years) by providing one year's written notice to the other Participant. If this Arrangement is not renewed at the expiration of the term or a renewal, and provided that VFPA is not in breach of this Arrangement, the Participants will continue to apply the terms of this Arrangement to all conservation projects that are either deposited in the Habitat Bank or have been confirmed by DFO in accordance with Annex B.

~~DFO proposed changes dated March 16, 2018~~ VFPA proposed changes dated August 14, 2018

~~[NTD: VFPA maintains its preference for a 20 year term for the Arrangement. This duration supports VFPA's significant investment in its habitat bank and provides longer term assurances for the development of new habitat sites in the future. Should DFO policy change within this 20 year term, the Arrangement can accommodate these changes through its 5 year review process identified in Clause 11 Review and through the provision for amending the Arrangement identified in Clause 12 Amendment.]~~

16. LEGAL DISCLAIMER

This Arrangement is an expression of the mutual intentions of the Participants and is not legally binding or enforceable against them.

17. NOTICE

All notices to be given under this Arrangement shall be in writing and shall be sent by prepaid registered mail or ~~faesimile~~ electronic transmission addressed to the Party entitled to receive the same, or delivered to such party as follows:

- if to VFPA:

Vancouver Fraser Port Authority (VFPA)
100 The Pointe
999 Canada Place
Vancouver, British Columbia
V6C 3T4

Attention: Director, Infrastructure Sustainability
~~Faesimile~~ E-mail: 1.866.212.1688

with a copy to:

Attention: Director, Legal Services
~~Faesimile~~ E-mail: 1.866.665.9062

- if to DFO:

Fisheries and Oceans Canada (DFO)
Pacific Region, Ecosystems Management Branch
Suite 200 – 401 Burrard Street
Vancouver, BC
V6C 3S4

Attention: Regional Director
~~E-mail~~ Faesimile: 604-666-0417

~~DEO proposed changes dated March 16, 2018~~ VFPA proposed changes dated August 14, 2018

~~NOTE: Is fax really still relevant or should be propose something else, or is this a legal thing? I know was dealing with a bank a while back and they wouldn't accept e-mail it took me a while to figure out how to send a fax!~~

18. GENERAL

VFPA is entering into this Arrangement on its own behalf and not as agent of Her Majesty in Right of Canada.

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~~DFO proposed changes dated March 16, 2018~~ VFPA proposed changes dated August 14, 2018

EFFECTIVE DATE AND SIGNATURE

This Arrangement has been signed by the Regional Director of DFO Pacific Region of Fisheries and Oceans on behalf of Her Majesty the Queen in Right of Canada and by the VFPA on the dates noted below.

SIGNED IN THE PRESENCE OF:

FOR HER MAJESTY THE QUEEN IN RIGHT OF CANADA

Cheryl Webb
Regional Director
Ecosystems Management
DFO Pacific Region

Witness

Date

FOR VANCOUVER FRASER PORT AUTHORITY

Robin Silvester
President and CEO

Witness (as to both)

~~J. Dean Readman~~ Mark Gustafson
Corporate Secretary

Date

This Arrangement comes into effect on the date that both Participants have signed above.

DFO proposed changes dated March 16, 2018 VFPA proposed changes dated August 14, 2018

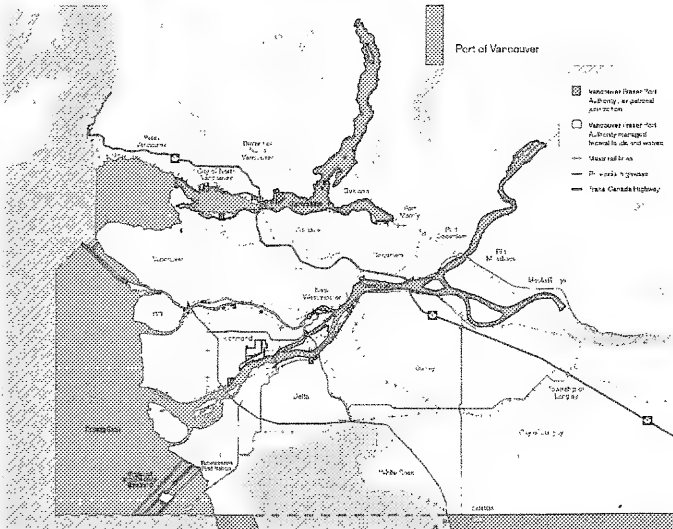
ANNEX A

**HABITAT BANK DESCRIPTION AND THE PRINCIPLES FOR THE MANAGEMENT
OF THE PORT OF VANCOUVER HABITAT BANK**

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ANNEX A:

HABITAT BANK DESCRIPTION AND THE PRINCIPLES FOR THE MANAGEMENT OF THE PORT OF VANCOUVER HABITAT BANK

Information Required	Description
Habitat Bank Location ("Service Area")	<p>The Service Area of the Habitat Bank will include conservation projects situated geographically within the <u>lands and waters managed by VFPA and within the navigational jurisdiction of VFPA pursuant to its Letters Patent, as amended from time to time. The Service Area includes the Fraser River Estuary and its tributaries, Burrard Inlet, the Strait of Georgia and its associated inlets (See Figure 1.0 below) and will include other areas as established from time to time as mutually agreed to by the Participants.</u></p> <p><u>Figure 1.0 Service Area of the Habitat Bank</u></p>  <p>[NTD: <u>The Service Area proposed has been refined by VFPA following a March 7/18 meeting with DFO. The same rationale for the above Service Area stands, and considers Indigenous engagement aspects discussed March 7/18. The rationale for the proposed Service Area is as follows: VFPA manages over 16,000 hectares of waterway, more than 1,000 hectares of land and approximately 350 kilometers of shoreline. Such areas includes</u></p>

	<p>estuarine and marine shoreline that supports a myriad of commercial, recreational and Aboriginal fisheries and fish that support these fisheries. Some of these fisheries species exhibit anadromous or migratory life histories. For example, Pacific salmon spend the adult portions of their lives feeding in the Pacific Ocean, including the Strait of Georgia, spawn in freshwater rivers and tributaries of the Fraser River and Burrard Inlet, and rear in the Fraser River estuary and along shallow marine shorelines. Habitat creation and enhancement targeted at migratory species can be planned throughout the proposed geographic service area and to the benefit of CRA species that occupy and transit the areas VFPA manages.]</p>
Habitat Bank Administration	<p>The Habitat Bank is a long-term initiative, comprised of conservation projects, that is used to proactively create, restore or enhance fish habitat to benefit fish and wildlife species. Consistent with VFPA's mandate, this enables VFPA to balance future infrastructure development opportunities with a healthy environment.</p> <p><u>Site Selection:</u></p> <p>Conservation projects for the Habitat Bank will generally be selected based on the following considerations and criteria:</p> <ul style="list-style-type: none"> (a) <u>Need:</u> Locations characterized by low productive capacity for species and stocks of interest or species at risk will be considered as a priority for the Habitat Bank. The intent is to develop or improve habitat capacity in the Service Area where habitat is needed and in support of applicable DFO policies. (b) <u>Habitat Productivity:</u> Emphasis will be placed on creation of high value habitat types that support a large number of ecological services and species functions (e.g. eelgrass beds and low marshes). The value of productivity will be assessed in the context of "need" (see (a) above). (c) <u>Site location:</u> Sites for the Habitat Bank will be selected based on their proximity to potential development areas with significant or rare ecological habitats or where onsite habitat compensation opportunities may be limited. (d) <u>Feasibility and cost:</u> Coastal zone processes, river hydraulics biological productivity and ecological functioning are amongst the factors that will be used to determine the feasibility of habitat creation. In some areas it may not be possible to achieve stable self-functioning habitat due to ongoing influences of physical processes. Further, some habitat creation options may be possible but only at extreme high cost. Consideration may be given if these habitat types are critical

	<p>for endangered or threatened species and the habitat credit applied to the Habitat Bank recognizes the increased cost of development.</p> <p>Through regular liaison meetings between DFO and VFPA representatives, potential conservation projects are identified and discussed.</p> <p>DFO's confirmation of the appropriateness of a proposed conservation project for inclusion in the Habitat Bank is achieved through submitting the project for review and confirmation by DFO using the "Project Confirmation" template set out in ANNEX Annex B.</p> <p>Note: A variation of this statement is included in Third Parties, below.</p> <p><u>Habitat Credits:</u></p> <p>Habitat credit valuation will be established specifically for each conservation project. This valuation will include the unit of measure and the value of the credits to be deposited in the Habitat Bank. A description of the approach and the analysis performed will be included in the preparation of the "Project Confirmation" using the template set out in ANNEX Annex B.</p> <p>Conservation projects will be recorded as a deposit into the Habitat Bank on the Habitat Credit Ledger upon completion of construction of the conservation project using the template set out in ANNEX Annex C.</p> <p>The actual productive value of a particular conservation project will be determined immediately prior to its proposed application-use as credit to offset a development project.</p> <p>VFPA shall, either through ownership, lease, licence or other agreement, ensure that a conservation project site is protected at least until the withdrawal of the habitat credits from the Bank that are associated with the conservation project site.</p> <p><u>Third Parties:</u></p> <p>VFPA may develop conservation projects for inclusion in the Habitat Bank in collaboration with third parties. Once included in the Habitat Bank, such conservation projects will be treated in the same manner as other conservation projects that have been placed into the Habitat Bank.</p> <p>VFPA may enter into agreements with third parties to allow withdrawal of habitat credits, as defined by this Arrangement, when such an agreement facilitates development activities that support VFPA in fulfilling its mandate.</p>
Bank Establishment Date	<p>July 31, 2012 for a five (5) year trial period under the terms of the Working Agreement, which was executed on September 10, 2012, and which was extended by the Participants to September March 31¹⁴⁹.</p>

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	<u>20198, and which was replaced by this Arrangement on [insert date] for a term of fifteen (15) years.</u> Add: extension Add: new agreement
--	---

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ANNEX B

FORM OF PROJECT CONFIRMATION

The following document template (titled Project Confirmation) will be used to identify and confirm that a proposed conservation project is appropriate and confirmed for development and deposit in the Habitat Bank.

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 PORT of vancouver Habitat Enhancement Program	 Fisheries and Oceans Canada Pêches et Océans Canada <u>Project Confirmation</u>
PROJECT NAME:	

Terminology used:

- "Arrangement" refers to the arrangement between Fisheries and Oceans Canada and Vancouver Fraser Port Authority for the management and administration of the Vancouver Fraser Port Authority Habitat Bank
- "DFO" refers to Fisheries and Oceans Canada
- "FPIP" refers to *Fisheries Productivity Investment Policy: A Proponent's Guide to Offsetting (2013)*
- "VFPA" refers to Vancouver Fraser Port Authority
- "Project" refers to the proposed _____
- "QEP" refers to a Qualified Environmental Professional

Preamble:

In accordance with the Arrangement, this Project Confirmation will be used to confirm that:

- VFPA consulted and negotiated with DFO on the suitability of the above-referenced Project for habitat banking purposes.
- DFO agrees, in principle, that the above-referenced Project would be acceptable as fish habitat as identified herein.
- DFO agrees that the identified type of fish habitat and the approximate quantity of fish habitat would be suitable for habitat banking.
- The Project meets the terms of the Arrangement with regard to need, fish habitat, productivity, site location, feasibility/cost, and ownership/tenure.
- DFO acknowledges that VFPA has developed the project concept and will move to final design as identified in the attached drawings.

This Project Confirmation is used to support the conditions and requirements of the Arrangement and does not alter or modify the Arrangement in any manner. This Project Confirmation will also be used to confirm that the Project, if constructed as proposed, meets the objectives of the FPIP. An assisted assessment has determined that a DFO regulatory review pursuant to the Fisheries Act is not required for the Project. This assessment was conducted by a QEP in accordance with guidance from DFO's Projects Near Water web site and DFO's "Science Advice for Managing Risk and Uncertainty in Operational Decisions of the Fisheries Protection Program" (2014). As would be expected for a viable habitat enhancement opportunity, this assessment concluded that the Project will not result in Serious Harm to fish that contribute to commercial, recreational or Aboriginal (CRA) fisheries.

As the Project proceeds, VFPA will maintain responsibility to ensure that the Project has undergone appropriate reviews and assessments, including those mandated by applicable environmental assessment legislation (e.g., Species at Risk Act, if applicable) and any other VFPA-mandated reviews and assessments.

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Project Overview:	
<ul style="list-style-type: none"> • Description of the proposed project and how the proposed project will result in the creation of fish habitat that will provide long-term benefits for <u>targeted species of fish such as salmon, aquatic species at risk or other species that may salmonid stocks, aquatic species at risk species, and other fish and wildlife that utilize the project area.</u> • Description and valuation of the ecological functions that the proposed project will include. • Brief description of the proposed construction activities, including how they will be undertaken to avoid and mitigate any impacts to fish and fish habitat. • Brief description of the proposed timing for project completion, including post-construction monitoring. 	
Water feature name:	
Location of Works	
Regional district/ land use authority:	
City/municipality:	
Lat./Long.	
Property ownership:	
Description of Pre-Construction Values	
<ul style="list-style-type: none"> • Description of pre-construction habitat values and conditions, including biophysical attributes • Description of pre-construction use of the area, including site history as appropriate 	
Description of Proposed Activities	
<ul style="list-style-type: none"> • Detailed description of construction activities and design approach • Includes attachment of design drawings, and proposed habitat area for construction • Description of construction methodology and detailed mitigation measures 	
Overall work schedule:	
Least risk work window:	

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Potential Habitat Gains and Anticipated Affected Areas

- Description of habitat gains, and anticipated affected habitat, table format

Habitat Type	Potential Habitat Gain (m ²)	Anticipated Affected Habitat (m ²)	Comments
X Habitat Type			
Habitat Gains and Affected Habitat			

Fish Productivity Investment Policy Considerations

- Description and high-level summary of how the proposed project is expected to comply with FPIP objectives, based on project characteristics, ecology of relevant fisheries species, fisheries management objectives, and any local restoration priorities.
- This includes a review of readily available online information including DFO fisheries management plans and other documents as required
- Description and rationale for how the proposed project meets the following 4 Principles of the FPIP:
 - Principle 1: Offsetting measures must support fisheries management objectives or local restoration priorities.
 - Rationale:
 - Principle 2: Benefits from offsetting measures must balance Project impacts.
 - Rationale:
 - Principle 3: Offsetting measures must provide additional benefits to the fishery.
 - Rationale:
 - Principle 4: Offsetting measures must generate self-sustaining benefits over the long-term.
 - Rationale:

Post Construction Monitoring Plan

- An as-built survey will be provided to document and confirm the size of the created habitat, following construction.
- VFPA will ensure that post-construction monitoring is undertaken in accordance with standard DFO requirements to confirm that created fish habitats are functioning as intended.
- A Post-Construction Monitoring Plan for the Habitat Enhancement Program has been created to outline monitoring requirements for habitat enhancement sites.
- Monitoring will include assessments of site stability, proper physical function, planting success, and

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achievement of the desired biological objectives.

- VFPA to provide an estimate of predicted time for the vegetation at the site to become well established

Attachments

- Design Drawings (attachment)

Signed on behalf of Vancouver Fraser Port Authority:

Habitat Enhancement Program
Vancouver Fraser Port Authority

Date: _____

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ANNEX C

HABITAT CREDIT LEDGER

The following template shall be used to record and track the credits associated with each conservation project that has been deposited in the Habitat Bank. The completed Habitat Credit Ledger will be submitted to DFO at the following frequency:

- with each Annual Report; and
- following a transaction in the Habitat Bank (withdrawal or deposit of credits).

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ANNEX D

FORM OF PROGRESS REPORTS

The following reports will be used to document and communicate the status of the Habitat Bank on an annual basis:

- Annual Report for VFPA's Habitat Bank; and
- Annual Habitat Monitoring Report for VFPA's Habitat Bank.

Each report will be submitted to DFO on annual basis and shall include the detail as provided in the following Outline of Content.

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<u>ANNUAL REPORT FOR VFPA'S HABITAT BANK</u>	
– Outline of Content	
<u>SECTION</u>	<u>CONTENT</u>
1. Table of Contents	
2. Terminology Used	<ul style="list-style-type: none"> • Descriptions of terminology used in the report
3. Executive Summary	<ul style="list-style-type: none"> • Identification of purpose of Annual Report • Statement of commitment between Participants for a working relationship built on trust, accountability and information sharing • Overview of annual transactions and current credits
4. Introduction	<ul style="list-style-type: none"> • Background on the Habitat Bank • Acknowledgement of reporting requirements under the terms of the Arrangement
5. Administration of the Habitat Bank	<ul style="list-style-type: none"> • Tracking processes and responsibilities • Activities started/completed in Reporting Period • Annual Review • VFPA and DFO Liaison Activities • Achievements in Reporting Period
6. Credits in the Habitat Bank	<ul style="list-style-type: none"> • Summary of the credits in the Habitat Bank and the transaction that were performed in the reporting year
7. General Ledger	<ul style="list-style-type: none"> • Overview of the General Ledger
8. Habitat Balance Sheet	<ul style="list-style-type: none"> • Overview of the Habitat Balance Sheet
9. Anticipated Program for 20XX [Next Year]	<ul style="list-style-type: none"> • Projects Currently under Construction • Priority Projects for 20XX
10. Management Issues and Opportunities	<ul style="list-style-type: none"> • Challenges and issues encountered • Obstacles • Potential remedial measures for implementation next year
11. Indigenous Engagement Activities	<ul style="list-style-type: none"> • <u>Summary of Indigenous engagement activities performed within the reporting year on conservation projects</u>ADD DETAILS
12. <u>Public and Key Stakeholder Engagement</u>	<ul style="list-style-type: none"> • <u>Summary of public and key stakeholder engagement activities performed within the reporting year on conservation projects</u>

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<u>ANNUAL REPORT FOR VFPA'S HABITAT BANK</u>	
-- Outline of Content	
<u>SECTION</u>	<u>CONTENT</u>
<u>ActivitiesCommunity Outreach</u>	Summary of public and key stakeholder engagement activities performed within the reporting year on conservation projectsOPTIONAL TO REPORT ADD DETAILS
<u>Appendices</u>	
Appendix A	Summary of VFPA and DFO Meetings in the Reporting Year
Appendix B	As-Built Reports
Appendix C	Credit Transaction Reports
Appendix D	Map of Sites in the Habitat Bank
Appendix E	General Ledger
Appendix F	Habitat Balance Sheet
Appendix G	Map of Sites Proposed for Next Year

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<u>ANNUAL HABITAT MONITORING REPORT FOR VFPA'S HABITAT BANK</u>	
– Outline of Content	
<u>SECTION</u>	<u>CONTENT</u>
1. Terminology Used	<ul style="list-style-type: none"> • Descriptions of terminology used in the report
2. Introduction	<ul style="list-style-type: none"> • Background of the Habitat Bank • Acknowledgement of reporting requirements under the terms of the Arrangement
3. Types of Monitoring	<ul style="list-style-type: none"> • Description of the various types of monitoring that is used for the administration of the Habitat Bank
4. 20XX Monitoring Results	<ul style="list-style-type: none"> • Overview of monitoring results for each conservation project (Detailed reports are included in Appendix A)
5. Next Year's Habitat Monitoring Report	<ul style="list-style-type: none"> • Overview of next year's anticipated habitat monitoring
<u>Appendices</u>	
Appendix A	Conservation Project Monitoring Reports
Appendix B	Monitoring Status and Proposed Monitoring Schedule

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ANNEX E

EXISTING PROJECTS

The conservation projects that are identified herein represent the status of the Habitat Bank and projects planned for the Habitat Bank as of the Effective Date of this Arrangement.

Table 1 – Conservation projects currently deposited in the Habitat Bank

Table 2 – Conservation projects that have been proposed by VFPA and accepted by DFO
as appropriate for development and deposit into the Habitat Bank

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Table 1.0 – Conservation Projects Deposited to VFPA Habitat Bank

No.	SITE	LOCATION	BANKED AREA (m ²)	STATUS
1.	Salt Marsh Restoration – TFN (3.1 & 3.2)	Delta (Tsawwassen)	6,635 m ² (salt marsh)	<ul style="list-style-type: none"> • Work is complete • Monitoring is in progress
2.	Salt Marsh Restoration - Boundary Bay (3.3, 3.4 & 3.5)	Delta (Boundary Bay)	56,357 m ² (salt marsh)	<ul style="list-style-type: none"> • Work is complete • Monitoring is in progress
3.	Glenrose Tidal Marsh	Delta	10,778 m ² (tidal freshwater marsh)	<ul style="list-style-type: none"> • Work is complete • Monitoring is in progress
4.	Riverfront Park Tidal Marsh	Vancouver	1,481 m ² (brackish marsh)	<ul style="list-style-type: none"> • Work is complete • Monitoring is in progress
5.	Gladstone Park Tidal Marsh	Vancouver	3,181 m ² (brackish marsh)	<ul style="list-style-type: none"> • Work is complete • Monitoring is in progress
6.	Timberland Basin Habitat	Surrey	1,146 m ² / 2,777 m ² (tidal freshwater marsh / tidal freshwater mudflat)	<ul style="list-style-type: none"> • Work is complete • Monitoring is in progress
7.	<u>New Brighton Park Shoreline Habitat Restoration Project</u>	<u>Vancouver</u>	<u>9,872 m²</u> (<u>salt marsh, marine tidal channel & mudflat, cobble/boulder beach, and marine riparian</u>)	<ul style="list-style-type: none"> • <u>Work is complete</u> • <u>Monitoring is in progress</u>

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Table 2.0 – Conservation Projects Proposed by VFPA and accepted by DFO as appropriate for the Habitat Bank

No.	SITE	LOCATION	APPROX. GROSS AREA (ha.)	STATUS
1.	New Brighton Park Shoreline Habitat Restoration Project	Vancouver	~1.5 ha	• Under construction
2.1.	Polygon Cates Landing Habitat Restoration	North Vancouver	~1.0 ha	• Under construction <u>Complete</u>
2.	<u>Maplewood Marine Restoration Project</u>	<u>North Vancouver</u>	<u>~7.0 ha</u>	• <u>Permitting and approvals in progress</u>
3.	Tsawwassen Eelgrass Project	Delta	~4.3 ha	• Permitting and approvals in progress
4.	South Arm Jetty Tidal Marsh Project	Richmond	~44.0 ha	• Permitting and approvals in progress
5.	Westham Island / Canoe Pass Tidal Marsh Project	Ladner	~4.0 ha	• Permitting and approvals in progress
6.	McDonald Tidal Marsh Project	Richmond	~2.8 ha	• Permitting and approvals in progress
7.	Point Grey Tidal Marsh Project	Vancouver	~41.0 ha	• To be advanced in future years
8.	Steveston Island Tidal Marsh Project	Richmond (Steveston)	~6.5 ha	• To be advanced in future years

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ANNEX F

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INDIGENOUS CONSULTATION AND ENGAGEMENT: USE OF HABITAT CREDITS TO MEET OFFSETTING REQUIREMENTS OF A FISHERIES ACT AUTHORIZATION

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Consultation with Indigenous peoples is required when Fisheries and Oceans Canada (DFO) makes a regulatory decision that may adversely impact potential or established Aboriginal or treaty rights, Indigenous groups and their related interests. Under the fisheries protection provisions of the *Fisheries Act*, a regulatory decision occurs when DFO contemplates the decision to authorize a work, undertaking or activity under section 35(2)(b) of the *Fisheries Act*. Indigenous consultation will normally take place after DFO has received an Application for Authorization and determined that the information requirements set out in the Applications for Authorization under [Paragraph 35(2)(b) of the *Fisheries Act Regulations*] [NTD: Check cross reference.] have been met.

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DFO will consult on the work, undertaking or activity being authorized under section 35(2)(b) of the *Fisheries Act* and any other aspects of the Authorization that have the potential to adversely impact potential or established Aboriginal or treaty rights, and related interests. The goal of these consultations will be to identify measures to avoid, minimise, or if required accommodate for, potential impacts of the work, undertaking or activity on the rights or interests of Indigenous peoples through mitigation and offsetting to be incorporated into the Authorization.

As the purpose of utilizing habitat banking credits is to meet offsetting requirements of an Authorization issued under section 35(2)(b) of the *Fisheries Act*, the proposed use of habitat banking credits is subject to Indigenous consultation.

DFO proposed changes dated March 16, 2018 VFPA proposed changes dated August 14, 2018

ANNEX G

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INDIGENOUS CONSULTATION AND ENGAGEMENT: CONSERVATION PROJECT DEVELOPMENT BY HEP

Overview and Purpose

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Indigenous consultation and engagement is a key element for the successful delivery of habitat creation and enhancement (conservation) projects undertaken by VFPA's Habitat Enhancement Program (HEP). This Annex describes the process implemented by HEP for developing conservation projects and identifies key points during the process for input and involvement by Indigenous groups. HEP's consultation and engagement with Indigenous groups aims to identify and address project-related impacts, to design and implement appropriate mitigation measures, and to explore opportunities for Indigenous involvement such as participation in field studies and/or employment, training and contracting. Subject to the discretion and direction of applicable regulatory agencies, including VFPA, HEP also aims to undertake consultation with Indigenous groups in accordance with the requirements of regulatory processes that are applicable to the conservation project (such as VFPA's Project and Environmental Review Process).

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Conservation Project Development Process

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The development of conservation projects is achieved through six basic project management phases that are used to guide and control the project from start to finish.

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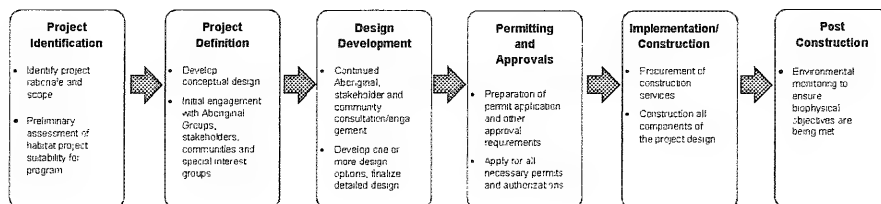
Commencing with the identification of a potential project, the process provides for the structured development and advancement of all required components required for project delivery.

- **Phase 1 (Project Identification)** – The “idea” or the vision of what could be achieved.
- **Phase 2 (Project Definition)** – What are the project objectives? Constraints?
- **Phase 3 (Design Development)** – How will the project objectives be achieved?
- **Phase 4 (Permitting and Approvals)** – Obtaining formal permission to perform the work.
- **Phase 5 (Implementation/Construction)** – Construction of the habitat project.
- **Phase 6 (Post Construction)** – Ensuring long-term success of the habitat project.

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The illustration below depicts these six key project management phases and provides the key tasks associated with each.

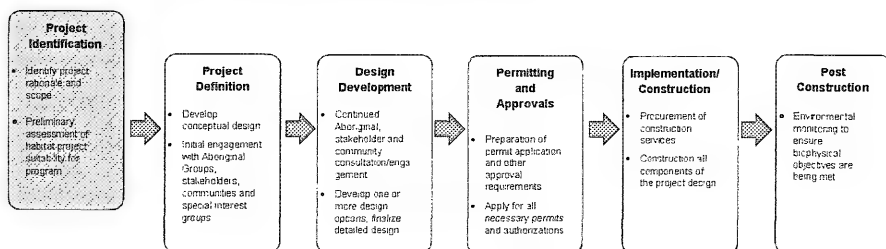
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Phase 1 - Conservation Project Identification

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The identification of potential conservation projects is a critical component of the project delivery process. Considerations include habitat need, habitat productivity, feasibility, cost, land tenure, DFO confirmation and Indigenous matters.

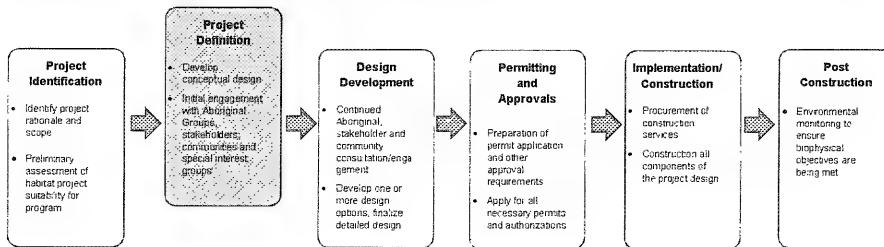
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Indigenous Consultation and Engagement

- HEP seeks input from Indigenous groups on identification of potential habitat enhancement sites
- HEP seeks input from Indigenous groups on conservation projects identified by others
- Indigenous groups share available traditional knowledge, information and studies

Phase 2 - Conservation Project Definition

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The development of conceptual designs is key in defining what a conservation project could include. Using these concept designs, initial engagement and consultation on specific project features can commence.

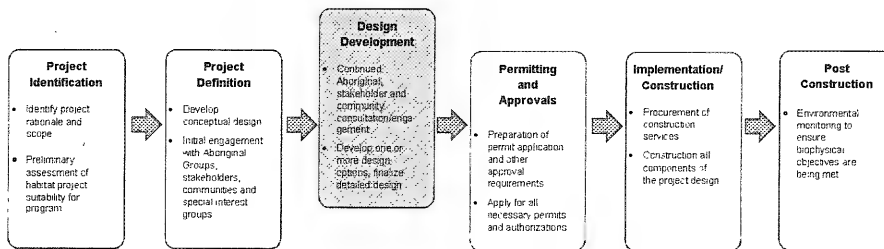
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Indigenous Consultation and Engagement

- HEP consults Indigenous groups on preferred engagement activities for project (e.g. Aboriginal Technical Design Committee)
- HEP consults Indigenous groups on project concept
- HEP identifies potential habitat values (i.e. credit estimates) that could be created and engages with interested Indigenous Groups
- Indigenous groups share Traditional Knowledge with HEP
- HEP identifies opportunity for involving Indigenous groups in field studies and assessments
- HEP commences planning for Indigenous involvement throughout project (e.g. contracting, employment and training opportunities)

Phase 3 - Design Development

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In the design phase, one or more designs are developed and evaluated. Through an iterative design process, a final design is selected and is refined to include all details necessary for construction.

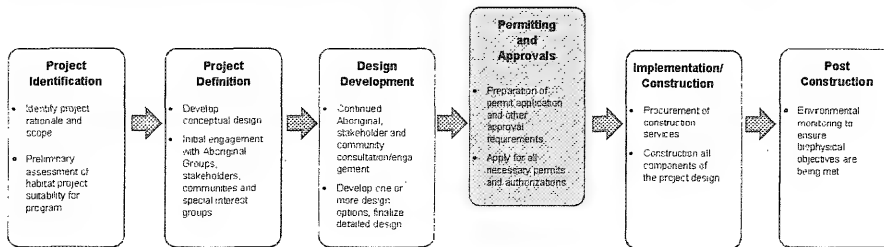
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Indigenous Consultation and Engagement

- HEP consults Indigenous groups on the design options
- HEP considers Indigenous feedback and refines design of project where appropriate (including selection of plant species)
- Where required, HEP undertakes further consultation with Indigenous groups on the design
- HEP finalizes the design
- HEP shares final design with Indigenous groups
- HEP confirms habitat values (i.e. credits) and consults with Indigenous groups
- HEP obtains DFO confirmation of appropriateness of habitat project for the Habitat Enhancement Program
- HEP plans for continued Indigenous involvement in subsequent phases

Phase 4 - Permitting and Approvals

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Permits and approvals that are required must be addressed on a project-by-project basis as regulatory requirements and land ownership can vary significantly.

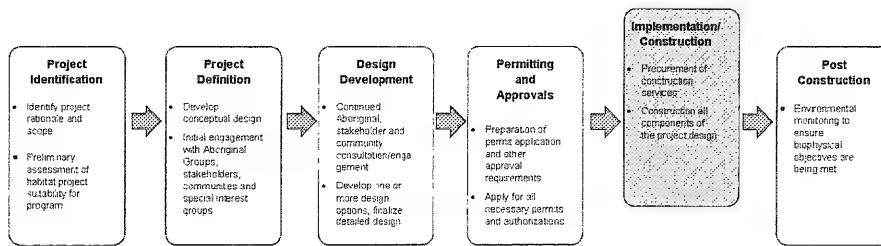
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Indigenous Consultation and Engagement

- HEP engages with Indigenous groups in relation to permits and approvals
- HEP develops a summary of permits and approvals required and shares with Indigenous groups
- HEP seeks Indigenous input and support on permit applications
- HEP notifies Indigenous groups on submission of permit applications
- Regulators and permitting authorities may undertake Indigenous consultation
- HEP plans for continued Indigenous involvement in subsequent phases

Phase 5 - Implementation/Construction

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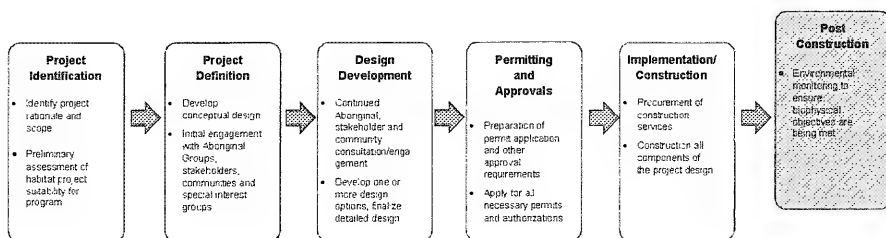
The conservation project takes shape during the Implementation/Construction Phase.

Indigenous Consultation and Engagement

- *HEP identifies approach to procurement and determines opportunities for Indigenous involvement/benefits*
- *HEP monitors conditions of approval/permits and any commitments to Indigenous groups*
- *HEP continues to keep Indigenous groups updated on progress of construction*
- *HEP plans for continued Indigenous involvement in Post Construction Phase*

Phase 6 - Post Construction

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Indigenous Consultation and Engagement

- *HEP shares Post Construction Monitoring Plan with Indigenous groups*
- *Potential contracting opportunities for Indigenous groups (e.g. maintenance, monitoring)*

Thorpe, Suzanne

From: Olson, Charlotte <Charlotte.Olson@portvancouver.com>
Sent: Thursday, October 18, 2018 2:22 PM
To: Nutton, Byron
Cc: Thorpe, Suzanne; Ruffo, Gord; Assier, Gilles
Subject: RE: DFO-VFPA Arrangement - DRAFT Aug 14 - FOR DFO REVIEW - respond by Oct 31 please

Thanks Byron, we look forward to your formal response that you note below – and of course we understand that we have to close out the Indigenous engagement that we are doing now, per our agreed plan/approach.

Please respond by Oct 31. Thank you.

Charlotte

From: Nutton, Byron [mailto:Byron.Nutton@dfo-mpo.gc.ca]
Sent: Thursday, October 18, 2018 1:06 PM
To: Olson, Charlotte <Charlotte.Olson@portvancouver.com>
Cc: Thorpe, Suzanne <Suzanne.Thorpe@dfo-mpo.gc.ca>; Ruffo, Gord <Gord.Ruffo@portvancouver.com>; Assier, Gilles <Gilles.Assier@portvancouver.com>
Subject: RE: DFO-VFPA Arrangement - DRAFT Aug 14 - FOR DFO REVIEW - respond by Oct 31 please

Hi Charlotte,

I have already conveyed your recent concerns to my managers and we are working on providing you with a formal response, but I do not expect that we will have any additional comments at this time..

Obviously, any expectations with respect to the status of the draft arrangement needs to respect the context of on-going Indigenous engagement which may require additional considerations.

Regards,

Byron

From: Olson, Charlotte [mailto:Charlotte.Olson@portvancouver.com]
Sent: 2018–October-18 12:57 PM
To: Nutton, Byron <Byron.Nutton@dfo-mpo.gc.ca>
Cc: Thorpe, Suzanne <Suzanne.Thorpe@dfo-mpo.gc.ca>; Ruffo, Gord <Gord.Ruffo@portvancouver.com>; Assier, Gilles <Gilles.Assier@portvancouver.com>
Subject: RE: DFO-VFPA Arrangement - DRAFT Aug 14 - FOR DFO REVIEW - respond by Oct 31 please

Hi Byron, further to my note below – thanks for speaking briefly about this on Tuesday.

It is important that DFO respond in writing to my request below – **please respond by Wed October 31st with any comments to VFPA**. Specifically, it is VFPA's understanding that we have reached agreement on the key terms expressed in the attached draft document that we have been working with you on, for over a year. If there are DFO-proposed changes to what is presented in this Aug 14/18 draft document, they need to be identified immediately to VFPA please.

Please respond by email to myself & Gord Ruffo. Thank you again for your attention to this.

PS – [REDACTED] please call Gord (604-202-8022) if you'd like to discuss in person, but we do ask for a written response please. Gord will be following up.

Charlotte Olson P.Geo., PMP
Manager, Infrastructure Habitat Development

CELL: 604.349.4111

From: Olson, Charlotte
Sent: Monday, October 15, 2018 8:58 AM
To: 'Nutton, Byron' <Byron.Nutton@dfo-mpo.gc.ca>
Cc: 'Thorpe, Suzanne' <Suzanne.Thorpe@dfo-mpo.gc.ca>; Ruffo, Gord <Gord.Ruffo@portvancouver.com>; Assier, Gilles <Gilles.Assier@portvancouver.com>
Subject: RE: DFO-VFPA Arrangement - DRAFT Aug 14 - FOR DFO REVIEW
Importance: High

Hi Byron,
Following our meeting on Thursday Oct 11 at VFPA, there was some concern with VFPA senior management regarding the status of our current draft Arrangement (re-attached here) – dated Aug 14/18, it is with you for review/comment. The current draft sent below in August, addresses all your comments sent to us in March 2018 (see email trail below).

Please reply here immediately if there are additional changes DFO is considering, that VFPA has not been advised of. Per attached Aug 14 draft – the attached is our understanding of our current Arrangement draft, for your review & comment as of mid-August.

Please respond as soon as possible with any comments, particularly if DFO has changed your approach to any items.

Thanks, Charlotte

Charlotte Olson P.Geo., PMP
Manager, Infrastructure Habitat Development

s.19(1)

CELL: 604.349.4111

From: Olson, Charlotte
Sent: Wednesday, August 15, 2018 4:08 PM
To: Nutton, Byron <Byron.Nutton@dfo-mpo.gc.ca>
Cc: Thorpe, Suzanne <Suzanne.Thorpe@dfo-mpo.gc.ca>; Ruffo, Gord <Gord.Ruffo@portvancouver.com>
Subject: RE: DFO-VFPA Arrangement - DRAFT Aug 14 - FOR DFO REVIEW
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Good afternoon Byron
Please find attached VFPA's most current proposed version of the draft Arrangement dated Aug 14/18. This follows on the March version/comments you had sent below.

You will see that:

- We now show Annex F & G – as requested, edited in the text of the Arrangement (in blue) – and attached at the end of the document in draft
- We also indicate the Service Area within the draft (see Annex A)

- Other edits to address your notes/comments below

Using what you sent below, our legal team has prepared the attached draft dated August 14, 2018 for DFO review.

Thanks, and we look forward to meeting with you both next week!
Charlotte

Charlotte Olson P.Geo., PMP
Manager, Infrastructure Habitat Development

CELL: 604.349.4111

From: Nutton, Byron [<mailto:Byron.Nutton@dfo-mpo.gc.ca>]
Sent: Friday, March 16, 2018 2:16 PM
To: Olson, Charlotte <Charlotte.Olson@portvancouver.com>; Ruffo, Gord <Gord.Ruffo@portvancouver.com>
Cc: Thorpe, Suzanne <Suzanne.Thorpe@dfo-mpo.gc.ca>
Subject: RE: March 7 DFO-VFPA HEP Meeting Follow Up - Actions

Hi Charlotte and Gord.

Please see the attached Arrangement with edits. Other than minor editorial changes, they generally relate to the outstanding items from the list I previously provided (i.e. third parties, indigenous engagement, information sharing) but Suzanne also made a few other suggestions unrelated to these items, which we feel improve the document. Similar to last time, it was getting pretty messy with track changes so I high-lighted the changes (Note: I might have missed high-lighting a few typos, etc. but certainly got all substantive ones). In cases where the edit is a deletion, I high-lighted the text and formatted as strike-through. There are also a couple of notes/suggestions without specific wording. Once you have had a chance to review, I'd be happy to discuss any concerns you might have.

In particular, we spent quite a bit of our effort trying to work out edits that address our outstanding concerns regarding the flexibility to consider third party engagement. Related edits, both larger and smaller, occur in several section of the Arrangement as well as Annex A. I think that we have managed to do so in a manner that meets VFPA's aspirations, but you have concerns in this regard please call me to discuss.

We added a section titled Indigenous Engagement which pretty much just refers to the proposed new Annex that Jemma is currently updating. As noted in the comments provided in that section, to be complete we probably need to add a step in the Annex on use of credits.

We added a clause to the Information Sharing section to accommodate DFO's review process, followed the wording you used for information sharing relating to VFPA's permitting process.

The only other outstanding item from the list I previously provided relates to Service Area, which is with you to reconsider in the context of Indigenous engagement.

Again, please feel free to give me a call to discuss any of these revisions. Otherwise I look forward to hearing back from you on a revised consultation annex, a first draft of a consultation plan, and your thoughts with respect to service area.

Cheers,

Byron

From: [Ruffo, Gord](#)
To: [Nutton, Byron](#); [Olson, Charlotte](#)
Subject: RE: DFO-VFPA Arrangement - DRAFT Aug 14 - FOR DFO REVIEW - respond by Oct 31 please
Date: 2018-October-31 4:43:57 PM

Thanks for confirming this Byron.

Gord

From: Nutton, Byron [mailto:Byron.Nutton@dfo-mpo.gc.ca]
Sent: October-31-18 3:58 PM
To: Olson, Charlotte <Charlotte.Olson@portvancouver.com>; Ruffo, Gord <Gord.Ruffo@portvancouver.com>
Subject: RE: DFO-VFPA Arrangement - DRAFT Aug 14 - FOR DFO REVIEW - respond by Oct 31 please

Hi Charlotte,

As previously communicated, pending the outcome of any considerations resulting from the ongoing Indigenous engagement, DFO remains committed to working towards finalizing the current draft of the habitat banking arrangement, such that a renewed arrangement under the current legislation and guidance is in place prior to the expiration of the current agreement.

In terms of identifying any specific proposed/anticipated changes to the August 14 version of the draft arrangement, at this time DFO remains supportive of a 10-year term while VFPA has been advocating for a longer term and has most recently proposed 15 years in the August 14th draft: a term for the arrangement will need to be agreed upon before it is finalized. In addition, DFO's Fisheries Protection Program is undergoing some re-structuring to better align with the Program's shifting mandate and reference to position titles (such as the Team Lead, Partnerships, Standards and Guidelines referenced in the second bullet of Section 6) will need to be updated as those changes are made over the coming months. Otherwise, I look forward to continuing with the Indigenous engagement plan, and working with you to finalize a renewed arrangement.

Regards,

Byron Nutton, RPBio

A/Team Lead | Chef d'équipe Intérimaire
Partnerships, Standards and Guidelines | Partenariats, Normes et lignes directrices
Fisheries Protection Program | Programme de protection des pêches
Fisheries and Oceans Canada | Pêches et Océans Canada
Pacific Region | Région du Pacifique

250-618-4268

From: Olson, Charlotte [mailto:Charlotte.Olson@portvancouver.com]
Sent: 2018-October-18 12:57 PM
To: Nutton, Byron <Byron.Nutton@dfo-mpo.gc.ca>
Cc: Thorpe, Suzanne <Suzanne.Thorpe@dfo-mpo.gc.ca>; Ruffo, Gord <Gord.Ruffo@portvancouver.com>; Assier, Gilles <Gilles.Assier@portvancouver.com>
Subject: RE: DFO-VFPA Arrangement - DRAFT Aug 14 - FOR DFO REVIEW - respond by Oct 31 please

Hi Byron, further to my note below – thanks for speaking briefly about this on Tuesday.

It is important that DFO respond in writing to my request below – **please respond by Wed October 31st with any comments to VFPA.** Specifically, it is VFPA's understanding that we have reached agreement on the key terms expressed in the attached draft document that we have been working with you on, for over a year. If there are DFO-proposed changes to what is presented in this Aug 14/18 draft document, they need to be identified immediately to VFPA please.

Please respond by email to myself & Gord Ruffo. Thank you again for your attention to this.

PS – [REDACTED] please call Gord (604-202-8022) if you'd like to discuss in person, but we do ask for a written response please. Gord will be following up.

Charlotte Olson P.Geo., PMP
Manager, Infrastructure Habitat Development
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Manager, Infrastructure Habitat Development

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To: Olson, Charlotte <Charlotte.Olson@portvancouver.com>; Ruffo, Gord

<Gord.Ruffo@portvancouver.com>

Cc: Thorpe, Suzanne <Suzanne.Thorpe@dfp-mpo.gc.ca>

Subject: RE: March 7 DFO-VFPA HEP Meeting Follow Up - Actions

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Cheers,

Byron

Thorpe, Suzanne

From: Scoble, Jemma <Jemma.Scoble@portvancouver.com>
Sent: Thursday, November 1, 2018 2:31 PM
To: Nutton, Byron; Ruffo, Gord
Cc: Thorpe, Suzanne; Smith, Shona
Subject: RE: Confirmation of availability for consultation in Chilliwack

Hi Everyone,
Let's go forward and schedule the 29th. I will confirm with PRRO and update you all accordingly with details etc.
Jemma

Jemma Scoble
Aboriginal Consultation Support
Port of Vancouver
778-822-7240

From: Nutton, Byron [mailto:Byron.Nutton@dfo-mpo.gc.ca]
Sent: November-01-18 1:37 PM
To: Ruffo, Gord <Gord.Ruffo@portvancouver.com>; Scoble, Jemma <Jemma.Scoble@portvancouver.com>
Cc: Thorpe, Suzanne <Suzanne.Thorpe@dfo-mpo.gc.ca>; Smith, Shona <Shona.Smith@dfo-mpo.gc.ca>
Subject: RE: Confirmation of availability for consultation in Chilliwack

Hi Gord and Jemma,

At this time it looks like all three of those dates work for all three of us.

However, please note that some of our DFO colleagues are holding a SARA White Sturgeon consultation session in Abbotsford on November 27th.

This may impact the availability of Indigenous groups so it might be best to shoot for one of the other two dates.

Cheers,

Byron

From: Ruffo, Gord [mailto:Gord.Ruffo@portvancouver.com]
Sent: 2018–October-31 5:05 PM
To: Nutton, Byron <Byron.Nutton@dfo-mpo.gc.ca>; Thorpe, Suzanne <Suzanne.Thorpe@dfo-mpo.gc.ca>; Smith, Shona <Shona.Smith@dfo-mpo.gc.ca>
Cc: Scoble, Jemma <Jemma.Scoble@portvancouver.com>
Subject: Confirmation of availability for consultation in Chilliwack

Hi Suzanne, Shona, Byron

We have been asked to confirm our availability for consultation on our Arrangement in Chilliwack for the following dates. Could you please review and advise asap?

Tuesday Nov 20
Tuesday Nov 27
Wednesday Nov 29

Thanks

Gord Ruffo P.Eng.
Senior Project Manager
Habitat Enhancement Program



Vancouver Fraser Port Authority
100 The Pointe, 999 Canada Place
Vancouver, B.C. Canada V6C 3T4

P: 604.665.9018 | CELL: 604.202.8022
portvancouver.com

No information has been removed or severed from this page

Subject: CONFIRMED - VFPA Habitat Bank-DFO Meeting w Al Rose & Site Visit
Location: Meet at VFPA - 10am - Pacific B Meeting Room
Start: Thu 10/11/2018 10:00 AM
End: Thu 10/11/2018 2:00 PM
Show Time As: Tentative
Recurrence: (none)
Organizer: Olson, Charlotte

Draft Agenda below:

DRAFT AGENDA	Lead (Duration)
Meeting: 10 AM - 12 PM	
1. Overview of VFPA's Habitat Enhancement Program	VFPA (5 min)
2. Project example for delivery of habitat projects: <u>New Brighton Park Shoreline Restoration Project</u>	VFPA (10 min)
3. Video presentation of all VFPA (HEP) habitat projects	VFPA (15 min)
4. VFPA presentation on challenges related to the implementation of proponent-led habitat banks	VFPA (30 min)
5. DFO update on proposed changes to regulations and guidance on habitat banks	DFO (30 min)
6. Discussion on challenges related to habitat banking	VFPA/DFO (30 min)

Lunch: 12 PM - 1 PM

- VFPA to host lunch

Site Visit to habitat project: 1 PM - 2 PM

1. Travel to and from New Brighton Park Shoreline Restoration Project
VFPA will provide transportation (15 min)
2. NBP Site Tour
VFPA (30 min)

No information has been removed or severed from this page

Smith, Shona

From: Ruffo, Gord <Gord.Ruffo@portvancouver.com>
Sent: Friday, November 16, 2018 6:01 PM
To: Nutton, Byron; Thorpe, Suzanne; Smith, Shona
Cc: Olson, Charlotte; Scoble, Jemma
Subject: Draft Meeting Notes from Sept 11 and Oct 16 Consultation Sessions
Attachments: 2018-09-11-VFPA-DFO Consultation with Aboriginal Groups - Meeting Notes-for DFO review - Rev B.docx; 2018-10-16-VFPA-DFO Consultation with Aboriginal Groups - Meeting Notes-for DFO review - Rev B.docx

Categories: Follow Up

Hi Byron, Suzanne and Shona

Attached are the draft Meeting Notes from our Sept 11 and Oct 16 consultation sessions. Please review and provide your edits and return to Jemma for distribution to the Aboriginal groups.

Thanks

Gord Ruffo P.Eng.
Senior Project Manager
Habitat Enhancement Program



Vancouver Fraser Port Authority
100 The Pointe, 999 Canada Place
Vancouver, B.C. Canada V6C 3T4

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portvancouver.com



VANCOUVER FRASER PORT AUTHORITY
MEETING NOTES

VFPA-HEP & DFO Consultation with Aboriginal Groups on:

- VFPA-HEP's Consultation Process for Habitat Banking Projects (VFPA)
- Overview of Proponent-led Habitat Banking (DFO)

Date: Tuesday, September 11, 2018

Time: 9:00 a.m. to 1:30 p.m.

Location: Pacific A & B Rooms, Vancouver Fraser Port Authority, 100 The Pointe 999
Canada Place, Vancouver

Participants:

[REDACTED] Semiahmoo First Nation	Jemma Scoble, VFPA
[REDACTED] Semiahmoo First Nation	Charlotte Olson, VFPA
[REDACTED] Musqueam First Nation	Gord Ruffo, VFPA
[REDACTED], Musqueam First Nation	[REDACTED] Hemmera
[REDACTED] Tsawwassen First Nation	
[REDACTED] Kwikwetlem First Nation	Byron Nutton, DFO
[REDACTED], Kwikwetlem First Nation	Suzanne Thorpe, DFO
	Shona Smith, DFO

Agenda:

- | # | <u>Item</u> |
|----------|---|
| 1. | Introductions |
| 2. | VFPA Presentation <ul style="list-style-type: none"> • Objectives of Information Session • Overview of VFPA's Habitat Enhancement Program • Overview of Aboriginal Consultation and Engagement on Habitat Banking Projects • Project example: New Brighton Park Shoreline Habitat Restoration Project |
| 3. | DFO Presentation <ul style="list-style-type: none"> • Requirements for Fisheries Act Authorizations • Proponent-led habitat banking • Habitat banking arrangements |
| 4. | Questions and General Discussion |

Documents Provided:

1. VFPA Presentation – Information Session on VFPA's Aboriginal Consultation Process for Habitat Banking Projects (VFPA HEP presentation)
2. Overview of Proponent-led Habitat Banking (DFO presentation)
3. Frequently Asked Questions on Proponent-led Habitat Banking (DFO provided)

VANCOUVER FRASER PORT AUTHORITY | MEETING NOTES

Summary of Discussion:

Jemma Scoble (JS) opens the session and welcomed to the participants to the Port's office. Bryan Nelson extends acknowledgment of the meeting taking place on Musqueam, Squamish and Tsleil-Waututh territory.

Gord Ruffo (GR) identifies that the purpose of this session was to share information related to the consultation process used for the delivery of VFPA's habitat projects that are proposed for VFPA's habitat bank with Aboriginal groups and to provide an opportunity for Aboriginal group's input into this process. GR also states that there were representatives from DFO to explain their policies related to habitat banking.

Round table of introductions was made.

Jemma Scoble (JS) provides information to the group regarding the consultation activities that VFPA and DFO are undertaking, such as today's session. Other sessions will occur this fall; one on Vancouver Island and one in Chilliwack.

Charlotte Olson (CO) provides the presentation on VFPA's Habitat Enhancement Program (HEP) including the background and history of the program. CO identifies that habitat projects are considered based on habitat need, habitat productivity, feasibility, cost, input from Aboriginal groups and Stakeholder input.

JS adds that the Glenrose Tidal Marsh Project was a habitat project that was brought to VFPA from several Nations where ancestral sites were being exposed by erosion and were being looted. The opportunity to protect these ancestral sites was of great significance to those Nations that we were consulting with. VFPA at looked what would be good for ancestral sites and also fish and prioritized this project more so than usual because of its significance to the communities.

JS acknowledges that Jay Hope, representing Kwikwetlem First Nation, has joined the session.

JS presents on Aboriginal consultation process that is used for VFPA's habitat banking projects. She identifies that projects are selected, in part, based on the priorities for the communities VFPA is consulting with. VFPA wants to know what projects should be considered and how we want to work together.

GR presents the Project Development Process and describes the six stages of project development (i.e. Project Identification, Project Definition, Design Development, Permitting/Approvals, Implementation/Construction and Post-Construction)

JS speaks to identifying habitat project sites that are significant for nations that HEP is working with. The Glenrose Tidal Marsh Project was an example. The Project Development phase is when the involvement of nations in construction opportunities is considered and has been made a priority.

JS describes Project Development is when we are able to incorporate input from aboriginal consultation processes and varies for each community and what they want. For all projects to date there has been involvement from planting to construction opportunities.

_____ representing Tsawwassen First Nation joins the meeting and introduces herself.

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VANCOUVER FRASER PORT AUTHORITY | MEETING NOTES

JS invites participants to ask questions on the process or to share any experiences specific to the HEP project consultation.

CO presents HEP's New Brighton Park Shoreline Habitat Restoration Project (NBP Project) as an example of the implementation of HEP's consultation process. The NBP Project was delivered in collaboration with Musqueam, Squamish and Tsleil-Waututh First Nations. The group requested that a Technical Committee be formed to advance the project through Design Development.

JS identifies that HEP also worked with Musqueam First Nation to rebuild its boat ramp on its foreshore. This project was initially focused on enhancing the foreshore area with a tidal marsh but feedback from the nation brought the focus to the need for a new boat ramp.

█ notes that from a Musqueam perspective creating a tidal marsh was not a priority, but boat ramp project was.

CO presents the New Brighton Park Shoreline Habitat Restoration Project. The project site is a location where industrial fill had to be removed to create the wetland at New Brighton Park.

█ asks if VFPA had to locate the wetland to avoid the City of Vancouver's utilities in the area (e.g. storm drain).

CO confirmed that the west edge of the wetland had to be moved to the east to accommodate the City of Vancouver's storm drain.

█ asks if there are any monitoring results as to fish use of wetlands.

CO identifies that HEP has completed its 2018 annual post construction monitoring a few weeks ago and can share it when the reporting is completed this fall, if there is interest. From a biological perspective, the results are very positive. Salt marsh is establishing as well. It's only been one year and takes some time for these sites to establish, but the current results are very positive. In an upcoming slide there is a photo from a Go-pro camera that confirms that juvenile salmon are now using the tidal channel.

GR adds that it is also surprising how fast kelp becomes established in new habitat. He had noted new kelp plants within 3 months of opening the channel.

JS offers the participants further opportunities to ask questions about the NBP Project.

█ asks if there was there aboriginal consultation for the NBP Project.

JS confirms there was. Consultation with Musqueam, Squamish and Tsleil-Waututh First Nations was conducted to determine the best way to work with nations moving forward. Consultation was also done on the on technical and design options.

CO adds that Musqueam, Squamish and Tsleil-Waututh First Nations worked our technical team on items such as hydraulic flushing, number of channel openings, etc.

JS adds that it was during these technical discussion that the planting plan was reviewed to ensure that the plant selections were supported by the nations involved.

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VANCOUVER FRASER PORT AUTHORITY | MEETING NOTES

asks if the planting plan included any consideration for climate change.

CO confirms that it was considered and monitoring is being done to determine the establishment of all species. The plants installed are also native coastal species.

adds that the plants that were selected are all appropriate native coastal species that survive at different water elevations. This provides for long-term survivorship of vegetation in the marsh area. The dune plants, for instance, are hearty and will thrive unless placed underwater.

CO reiterates that there is a monitoring team that goes out to the site and assess how the site is progressing.

asks how long is monitoring will be performed for.

CO states that the monitoring is performed on an annual basis up until it is withdrawn from the bank. After that point in time, any further requirements for monitoring would be identified in the Authorization that would be issued.

asks if the Park Board oversees the site.

CO confirms that the Park Board has a role for maintaining the adjacent park area but the area of the wetland habitat is under VFPA jurisdiction and is maintained by HEP.

states his concern that the Park Board could do something to affect the site, such as discharging chlorinated water from the swimming pool.

CO states that HEP is working closely with Park Board under a formal agreement which should prevent impacts to the wetlands.

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CO describes to the monitoring process and how this monitoring is confirming that the plants are becoming well established at the NBP Project, specifically pickleweed and arrowgrass.

states that this is a traditional food for Katzie and many different bands. One of the more valued trade goods. You have education in a garden like this, hopefully in the long term you can start creating real food again.

JS asks if participants if they had any more questions and offers a five minute break.

<Break>

Byron Nutton (BN) opens the second part of the session with DFO's presentation on Proponent-led Habitat Banking. BN explains the Regulatory Review Process for *Fisheries Act* Authorizations and how offsetting can be used to address residual serious harm to fish.

BN invites everyone to ask questions on DFO's at any time during his presentation.

asks how habitat credits recorded for habitat banking.

VANCOUVER FRASER PORT AUTHORITY | MEETING NOTES

BN states that the recording of habitat credits will be covered in more detail in the upcoming slides but in general, credits are recorded based on "area" (i.e. square metres).

BN continues with DFO's presentation and describes "conservation projects" which are generally categorized as habitat restoration/enhancement, habitat creation and chemical/biological manipulations. Habitat banking is most suited for habitat restoration/enhancement and habitat creation.

█ asks for an example of chemical or biological manipulation.

BN provides the examples of herbicide treatment of invasive species or lake fertilization to promote primary and secondary production would in turn improves the survival of juvenile fish.

█ asks, in reference to the "Habitat Credit Ledger", if this table is only for building projects.

BN explains that the column titled "Built (m2)" identifies what habitat project has been constructed and the habitat type. After the habitat becomes functional, the area is entered in the "Confirmed (m2)" column. Withdrawals or debits as well as deposits or credits are shown in the final two columns.

█ requests confirmation that the unit of measure is in square metres.

BN confirms that the unit of measure is in square meters by habitat types.

█ asks when habitat banking started.

BN states that there are examples of habitat banking from the early nineties so the policy is well established. BN was not sure if habitat banks were used Canada-wide but they have been used in this region as a practice for many years for offsetting environmental impact.

█ asks if surveys are performed to ensure original offsetting purposes are met.

BN confirms that for the habitat to be available to withdraw, the sites are checked.

BN continues with the presentation and discusses the benefits of habitat banking which includes the fact that habitat banks can create larger scale projects with greater biodiversity and function significantly better than a series of small habitat projects. Also, there is less uncertainty than with conventional offsetting as the habitat is established and proven when it is withdrawn for offsetting.

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█ asks about the scale of offset for components. For example, the ratio used; 1:1 or 5:1 for example.

BN explains that it depends on what the habitat and project is for the ratios. The other reason to use ratios is for time lag. Conventional offsetting creates an impact today and the offset becoming functional and different later on. There are different reasons to use ratios with size of impact versus the size of the offset. Sometimes uncertainty is one thing, if you are uncertain something may work, you build more of it so perhaps some of it might work.

█ asks for confirmation that there is not a standard "across the board" ratio being used.

VANCOUVER FRASER PORT AUTHORITY | MEETING NOTES

BN confirms that ratios are determined on a project-by-project basis and it is by habitat type that is being impacted, as well as habitat type being proposed for offsetting. For example it's easy to understand the currency exchange between eelgrass to eelgrass but it is more difficult to understand the exchange between mudflat to eelgrass. Having a ledger with different sites is useful in making decisions with offsetting measures but there is no magical formula. There is a lot of biology, a lot of formulas and site specifics in each case. There is no across the board type ratio.

asks for confirmation that each offsetting is based on a certain amount of judgement.

BN confirms that professional judgement is used for each offset as consideration is made to determine the importance of the habitat that is being affected and what can be achieved with the offset.

I remember some slides for Roberts Bank, they had a slew of logs they were looking at, trying to offset the loss of the aquatic component. Going by vague memory here, but that was one of those. Sheer ratio of the size of it.

BN states that based on what you're trying to achieve and site specifics, you might have to adapt plans and see what the right offset is for the right impact, takes a lot of the guess work out of it.

BN continues with the presentation and asks participants for questions.

CO distributes copies of Frequently Asked Questions related to offsetting and habitat banking that DFO has prepared.

asks how long has DFO been doing habitat banking.

BN states the habitat banking has been done informally for a number of years, going back to the early nineties. With changes to the *Fisheries Act* five years ago, one of the policies was offsetting and one of the proposed changes to the *Fisheries Act* now includes more changes to habitat banking. We might be doing it more with upcoming changes to the *Fisheries Act*. It's hard to know in terms of legislation but we know it will include more formalized work in support of habitat banking.

asks if there are examples where habitat banking was not considered sufficient by either the regulator or Aboriginal group. Also, are there examples of what occurs when there is a disagreement?

BN states that he aware of one example but is unaware of the details but it certainly has happened. If a proposal comes up and it's not enough and not adequate for the offset, more of a withdrawal may be needed from the habitat bank.

asks GR if VFPA was planning to use any of its habitat credits.

GR states that VFPA currently does not have any withdrawals proposed from the habitat bank.

CO adds that while VFPA currently does not have any plans to withdraw any credits right now, it may propose to do so in the future.

s.19(1)

BN: Being able to see fish underwater now in some places –all uncertainty gone and it's worked out very well.